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DOMINION BUREAU OF STATISTICS

DEPARTMENT OF TRADE AND COMMERCE, CANADA

THE
CANADA YEAR BOOK
1947

THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES,
HISTORY, INSTITUTIONS, AND SOCIAL AND ECONOMIC
CONDITIONS OF THE DOMINION

Published by Authority of
The Honourable JAMES A. MACKINNON, M.P.
MINISTER OF TRADE AND COMMERCE

OTTAWA
EDMOND CLOUTIER, C.M.G., B.A., L.Ph.,
KING'S PRINTER AND CONTROLLER OF STATIONERY
1947

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PREFACE

On July 1st of this year Canada celebrated her eightieth birthday. This event was also a milestone in the history of the Canada Year Book which (although not always under its present name and form) has traced statistically, the economic and social developments of the country year by year over the entire period since Confederation.

During war years the need for a co-ordinated picture of the War Effort to supplement the chapter material gave rise to the inclusion of an Introduction for the first time. This innovation is now continued with the purpose of giving a co-ordinated peacetime economic picture in much the same way. This edition goes to press at a time when it is possible to review the effects of the first full year of peace on the economy and the present Introduction, pp. xxix to xxxv, is written from that standpoint. In editions of the Year Book previous to the Second World War, the same purpose was behind the inclusion of current happenings, under the heading "Principal Events of the Year" in the final Chapter—The Annual Register. From the viewpoint of the average reader it is doubtful whether that material adequately served the desired purpose.

The chapters themselves show the changes that have taken place so far as data were available when the various sections were sent to press. Thus, since the Year Book normally takes nine months to pass through all stages of editing and printing, it is not possible to give a really up-to-date picture in either the earlier chapters or, to a progressively lesser degree, in some of the later ones.

In the editions published between 1939 and 1946 a considerable amount of standard textual analysis was either unduly condensed or eliminated from the chapters in order to provide the necessary space for special material on the War Effort. This condition is now being gradually remedied and the peacetime balance restored.

The chapters in the present volume have been re-arranged: related subjects are now brought together so that the treatment is not only more logical but permits of more convenient cross reference—a very important consideration in a publication of this type. For instance, Physiography, History, Government, Population and Vital Statistics which have always held a prior place in the chapter arrangement are now followed immediately by chapters that measure phenomena associated with Population in its social aspects, such as Public Health, Welfare, Crime and Delinquency, and Education and Research. The general Survey of Production, which appears next, is followed by the individual primary industries, then the secondary industries, then Services, Trade, Prices, Finance and Banking and finally by certain unclassified and miscellaneous material.

The regular statistical and textual data contained in each chapter have been carefully revised or brought up to date to reflect changing conditions. It is possible to mention here only the most outstanding cases.

The relatively new chapter on Welfare Services has required substantial adjustment each year since it was introduced in the 1945 Year Book. This Chapter is being developed gradually to cover operations that were formerly dealt with in less detail in several other chapters and the changes parallel closely the developments of the new Federal Department of National Health and Welfare on the welfare side. As these re-alignments take place the opportunities for presenting better co-ordinated statistics of related activities are considerably improved.

In Chapter IX—Crime and Delinquency—the current situation in regard to Juvenile Delinquency is analysed at pp. 247 to 263, and the relationships of the Royal Canadian Mounted Police and of the Provincial and Municipal Police Forces to the control and suppression of crime are developed. The Ticket-of-Leave System in Canada is also the subject of special treatment.

In the Chapter on Education, the important place occupied by Libraries in Canada is indicated by summary statistics compiled from the latest biennial Survey of Libraries in Canada and an outline of the purpose and operations of the United Nations Educational, Scientific and Cultural Organization (UNESCO) of which Canada became a Member in August, 1946, appears at pp. 313 to 315.

The important and basic Chapter on Agriculture has been considerably built up this year. In relation to the work of the Food and Agriculture Organization of the United Nations, the treatment as it appears at pp. 206 to 211 of the 1946 Year Book is developed and expanded particularly as it concerns Canada's part in the agricultural aspects of the work of FAO. During recent years the Government through the Federal Department of Agriculture has carried on extensive field studies and initiated important projects in connection with irrigation in the semi-arid areas of the Prairie Provinces. At pp. 375 to 379 the program is described in detail and is followed by a treatment of the irrigation projects carried out or planned in British Columbia.

In the Forestry Chapter the always popular description of Canadian tree species that last appeared in the 1940 Year Book is reintroduced in up-to-date form at pp. 384 to 387 and the Furs and Fisheries Chapters have also been recast.

The phenomenal growth of industrial 'know-how' during the war years brought stupendous changes in manufacturing processing and techniques. It is not possible to cover all aspects of this development in any one issue of the Year Book and the plan of dealing with individual industries, one at a time, suggests itself as a convenient solution. In this edition an up-to-date review of the Automobile Industry in Canada is included in the Manufactures Chapter at pp. 521 to 525.

The orderly readjustment to peacetime conditions is now almost completed. The final stages were marked by the lifting of a long list of price controls on Sept. 15, 1947, involving the removal of many subsidies. Operations leading up to this are traced in the Prices Chapter. By reference to pp. 885 to 893 of the 1945 Year Book, pp. 851 to 858 of the 1946 edition and pp. 916 to 924 of the current volume, readers will be able to get a good summary of the activities of the Wartime Prices and Trade Board—the key organization responsible for holding the price ceilings during the crucial years. Legislation passed during the 1947 Session of Parliament continues some of these powers, such as control of rentals, fats, oils, meats and other key items including certain exports and imports to March 31, 1948, but in the main the control of prices is now a closed chapter.

The Department of Reconstruction and Supply is a co-ordinating and planning body, although, of course, it also administers those Crown Companies that are continuing, or have not yet been wound up. To some extent, therefore, the Reconstruction Chapter may appear to deal with matters already referred to elsewhere in the Year Book. This, however, is true only in so far as it is found necessary to summarize what is said in other chapters for purposes of relating the facts to a common plan or policy. It is for this reason, too, that this Chapter takes its place in order after the production chapters and towards the end of the volume.

All Canadians are interested in the new Citizenship Legislation which has appeared on the Statute Books since the 1946 Year Book was published. A detailed treatment of this legislation is now given in the Miscellaneous Administration Chapter at pp. 1166 to 1171.

The substitution of a Directory of Official Sources of Information for the detailed lists of publications previously given in the Sources of Official Information Chapter has been decided upon: this Directory appears at pp. 1184 to 1202. The former detailed lists of publications were not easy of reference, since they were presented on a Departmental basis and a convenient subject classification was not possible. Moreover, most Federal and Provincial Departments publish individual lists of their own, classified and arranged for ready reference. For this reason, as well as to render better service to the public by directing general inquiries for official information to the proper sources, this Directory is felt to be desirable.

In addition to the chapter revisions, only the most important of which are touched on above, special articles are included on the National Agricultural Program and Policy in the Agriculture Chapter, Noxious Forest Insects and their Control in the Forestry Chapter, the History and Development of the Canadian Broadcasting Corporation in the Transportation and Communications Chapter, the Operations of the Canadian Wheat Board 1939-46, in the Domestic Trade Chapter, and Insurance in Canada during the Depression and War Periods in the Insurance Chapter.

More than the average number of maps and diagrams appear in the current volume. Additional ones have been printed in black and white to save expense. This is a feature of the Year Book to which greater emphasis is given in view of the popularity of visual means of interpretation at the present time. The expense and work involved in preparing such charts are considered to be more than offset by their usefulness in explaining the text.

The present volume has been edited by A. E. Millward, Editor, Canada Year Book, assisted by the Staff of the Year Book Division of this Bureau. Charts, graphs and layouts have been made by or under the direction of J. W. Delisle, Senior Draughtsman of the Bureau.

Acknowledgments are hereby tendered to the numerous officials of the Federal and Provincial Governments, and to others who have contributed material. Whenever possible, credit is given to the various persons and services concerned by means of footnotes to the respective sections.

With a view to the improvement of future editions, the Bureau will be glad to hear of any errors that may have escaped notice and to receive suggestions with regard to omissions or to methods of treatment.

HERBERT MARSHALL,
Dominion Statistician.

Dominion Bureau of Statistics,
Ottawa, Sept. 30, 1947.

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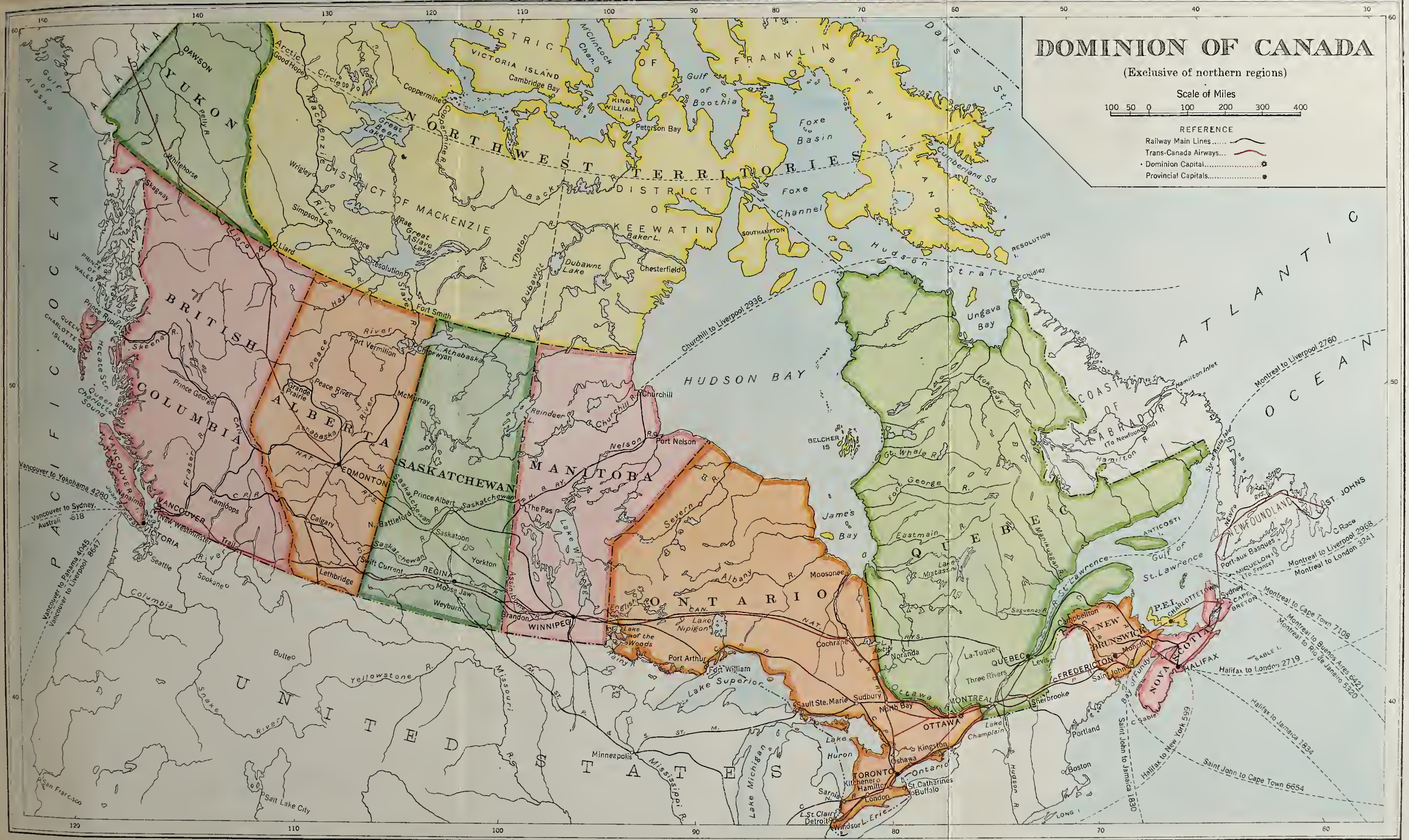

DOMINION OF CANADA

(Exclusive of northern regions)

Scale of Miles
100 50 0 100 200 300 400
REFERENCE
Railway Main Lines
Trans-Canada Airways
Dominion Capital
Provincial Capitals
YUKON
DAWSON
Whitehorse
Skagway
ALASKA
Gulf of Alaska
DISTRICT OF FRANKLIN
VICTORIA ISLAND
Cambridge Bay
KING WILLIAM I.
Peterson Bay
M'Clintock Chan.
Gulf of Boothia
BAFFIN ISLAND
Foxe Basin
Foxe Channel
Cumberland Sd
Davis Str.
NORTHWEST TERRITORIES
DISTRICT OF MACKENZIE
DISTRICT OF KEEWATIN
Arctic Circle
Good Hope
Coppermine
Great Bear Lake
Wrigley
Simpson
Providence
Rae
Great Slave Lake
Resolution
Fort Smith
Liard
Back R.
Thelon R.
Dubawnt Lake
Baker L.
Chesterfield
SOUTHAMPTON I.
RESOLUTION I.
Hudson Strait
Chidley
Ungava Bay
HUDSON BAY
Churchill to Liverpool 2936
Churchill
Port Nelson
BELCHER IS
James's Bay
BRITISH COLUMBIA
PRINCE OF WALES I.
QUEEN CHARLOTTE ISLANDS
Hecate Str.
Queen Charlotte Sound
Prince Rupert
Skeena R.
Prince George
Fraser R.
Kamloops
VANCOUVER I.
Nanaimo
VANCOUVER
New Westminster
VICTORIA
Trail
C.P.R.
ALBERTA
Peace River
Fort Vermilion
Chipewyan
L. Athabaska
Grande Prairie
McMurray
EDMONTON
Calgary
Lethbridge
SASKATCHEWAN
Prince Albert
N. Battleford
Saskatoon
Yorkton
REGINA
Moose Jaw
Swift Current
Weyburn
MANITOBA
Reindeer L.
Churchill R.
Nelson R.
The Pas
Lake Winnipeg
Brandon
WINNIPEG
ONTARIO
Severn R.
Albany R.
Moosonee
Lake Nipigon
Lake of the Woods
Port Arthur
Fort William
Lake Superior
Cochrane
Sault Ste. Marie
Sudbury
North Bay
OTTAWA
Kingston
Oshawa
TORONTO
Hamilton
Kitchener
St. Catharines
Buffalo
London
Sarnia
Windsor
Detroit
L. St. Clair
L. Erie
Lake Ontario
Lake Huron
Lake Michigan
QUEBEC
Eastmain R.
Lake Mistassini
Gt. Whale R.
Fort George R.
Koksoak R.
Noranda
La Tuque
Three Rivers
QUEBEC
Levis
MONTREAL
Sherbrooke
Ottawa R.
Saguenay R.
Manicouagan R.
St. Lawrence R.
COAST OF LABRADOR (To Newfoundland)
Hamilton Inlet
Hamilton R.
Str. of Belle Isle
ANTICOSTI
Gulf of St. Lawrence
NEWFOUNDLAND
ST. JOHNS
C. Race
Port-aux-Basques
MIQUELON (To France)
P.E.I.
CHARLOTTETOWN
NEW BRUNSWICK
Campbellton
FREDERICTON
Saint John
Moncton
Bay of Fundy
NOVA SCOTIA
HALIFAX
Sydney
CAPE BRETON
SABLE I.
C. Sable
ATLANTIC OCEAN
PACIFIC OCEAN
Vancouver to Yokohama 4280
Vancouver to Sydney, Australia 6818
Vancouver to Panama 4045
Vancouver to Liverpool 8647
Montreal to Liverpool 2760
Montreal to Liverpool 2968
Montreal to London 3241
Montreal to Cape Town 7108
Montreal to Buenos Aires 6421
Montreal to Rio de Janeiro 5320
Halifax to London 2719
Halifax to Jamaica 1834
Halifax to New York 599
Saint John to Jamaica 1830
Saint John to Cape Town 6654
UNITED STATES
Seattle
Spokane
Columbia R.
Butte
Yellowstone R.
Snake River
Missouri R.
Mississippi R.
Minneapolis
Salt Lake City
San Francisco
Portland
Boston
Lake Champlain
Hudson R.
Long I.
150
140
130
120
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COMPILED AND DRAWN AT THE OFFICE OF THE SURVEYOR GENERAL AND CHIEF HYDROGRAPHIC SERVICE OTTAWA

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ARTICLES AND MISCELLANEOUS TEXT MATERIAL (PUBLISHED IN FORMER EDITIONS) CLASSIFIED BY SUBJECT

Note.—It is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions, and the following list has been compiled as an index to such miscellaneous material and special articles as are not repeated in the present edition. This list links up the 1947 Year Book with its predecessors in respect to matters that have not been subject to wide change. Those sections of chapters, such as Population, which are automatically revived when new material is made available from a later census, and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. The latest published article on each subject is shown, except when an earlier article takes in ground not covered in the later one. When articles cover more than one subject they are listed under each appropriate heading.

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Agriculture—			
The Development of Agriculture in Canada	J. H. Grisdale, D.Sc.A.	1924	186–191
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Historical Background of Canadian Agriculture	G. S. H. Barton, C.M.G., B.S.A., D.Sc. A.	1939	187–190
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A Bibliography of Canadian History	Gustave Lanctot, LL.M., D.Litt., LL.D., K.C., F.R.S.C.	1939	36–40
The Development of the Press in Canada	A. E. Millward, B.A., B. Com.	1939	737–773
The Democratic Functioning of the Press	Senator, the Hon. W. A. Buchanan.	1945	744–748
Banking and Finance—			
Life Insurance—A Historical Sketch	A. D. Watson.	1925	860–864
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The Evolution of the Constitution of Canada Down to Confederation	S. A. Cudmore, B.A. (Tor.), M.A. (Oxon.), F.S.S., F.R. Econ. Soc., and E. H. Coleman, K.C., LL.D.	1942	34–40
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Geology of Canada	F. J. Alcock, Ph.D.	1939	309–310
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Select Bibliography of the History of Canada	Adam Shortt, C.M.G., LL.D., F.R.S.C.	1925	53–55
Canada on Vimy Ridge	A. F. Duguid, D.S.O., B.Sc., R.C.A.	1936	50–60
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The Relationship of the Public Archives to the Historical Records of Canada and a Bibliography of Canadian History	Gustave Lanctot, LL.M., D. Litt., LL.D., K.C., F.R.S.C.	1939	34–40
Hospitals and Institutions—			
Historical Review of Hospitals and Other Institutions	J. C. Brady, M.A.	1936	1006–1009
Insurance—			
The Growth and Development of Life Insurance in Canada	A. D. Watson.	1933	937–944
Fire and Casualty Insurance	G. D. Finlayson.	1942	842–846

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Legislation Respecting Combinations in Restraint of Trade	F. A. McGregor.	1927–28	765–770
Labour Legislation in Canada	Miss M. Mackintosh, M.A.	1938	787–796
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Manufactures—			
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Geology and Economic Minerals	F. J. Alcock, Ph.D.	1937	16–28
Government Control of Non-Ferrous Metals and Fuels in Wartime	—	1942	279–282
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The Outlook for the Mineral Industry in Relation to the Economic Development of Canada	G. H. Murray.	1946	302–314
The Coal Deposits and Coal Resources of Canada	B. R. MacKay, B.Sc., Ph. D.	1946	337–347
Miscellaneous Administration—			
(See p. 1156 for reference to articles on: the Dominion Observatories; the International Joint Commission; the Geodetic Survey; and the Topographical Survey.)			
National Defence—			
The British Commonwealth Air Training Plan—A Summary of the R.C.A.F.'s Major Role in the War of 1939–45	—	1946	1090–1099
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A Sketch of the Canadian Lumber Trade	A. R. M. Lower, M.A.	1925	318–323
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Mining—A Historical Sketch	—	1939	309–310
The Water-Power Resources of Canada and Their Utilization	J. T. Johnston.	1940	353–364
Geology and Economic Minerals	George Hanson, Ph.D.	1942	3–14
The Canadian Government's Reindeer Experiment	R. A. Gibson.	1943–44	17–23
The Development of Marshlands in Relation to Fur Production and the Rehabilitation of Fur-Bearers	D. J. Allan.	1943–44	267–269
Northwest Territories—			
The Canadian Government's Reindeer Experiment	R. A. Gibson.	1943–44	17–23
Physiography—			
Physical Geography of the Canadian Eastern Arctic	R. A. Gibson.	1945	12–19
The Relation of Hydrography to Navigation and the War Record of the Hydrographic and Map Service	F. G. Smith.	1946	14–18

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Areas and Populations of Countries of the British Empire, 1941	—	1943–44	141–142
Prices—			
The Nutrition and Family Living Expenditures Investigation	H. F. Greenway, M.A.	1940	819–821
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A Historical Sketch of Radio Communications	Commander C. P. Edwards, O.B.E.	1932	607–610
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Seismology—			
Seismology in Canada	E. A. Hodgson, Ph.D.	1938	27–30
Time and Time Zones—			
Standard Time and Time Zones in Canada	C. C. Smith.	1934–35	50–53
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Advisory Board on Tariff and Taxation	—	1930	1018
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Canada's Northern Airfields	A. D. McLean.	1945	705–712
Water Power—			
The Water-Power Resources of Canada and Their Utilization	J. T. Johnston.	1940	353–364

ARTICLES AVAILABLE IN REPRINT FORM

NOTE—Because of public interest in certain of the Special Articles, the policy of reprinting such articles as are of continuing value has been approved, and a number of them will be made available each year. Those now obtainable are listed below together with prices. Applications for them should be made to the Dominion Statistician.

ENGLISH EDITIONS

Article	Price
Agriculture—	cts.
Agriculture in Canada	10
Irrigation in Western Canada	10
Art, Literature and the Press—	
Democratic Functioning of the Press	10
Banking and Finance—	
Banking and Exchange	10
Currency	10
Climate and Meteorology—	
Meteorology Related to the Science of Aviation	10
Constitution and Government—	
Canada's Part in the Relief and Rehabilitation of the Occupied Territories	10
Canada's Place in the British Commonwealth of Nations	10
Dominion-Provincial Relations	10
The Constitution and Government of Canada	10
The Development of the Canadian Constitution	15
Fisheries—	
The Effects of the War on Canadian Fisheries	10
Flora and Fauna—	
The Flora of Canada	15
The Flora and Fauna of Canada	15
Forestry—	
Forestry in Canada	15
Noxious Forest Insects and Their Control	10
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Fur Trade—	
Fur Resources	10
Geology—	
Geology of Canada	10
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The Automobile Industry in Canada	10
Mining—	
The Coal Deposits and Coal Resources of Canada	10
The Outlook for the Mineral Industry in Relation to the Economic Development of Canada	10
Northwest Territories—	
Canadian Government's Reindeer Experiment	10
Physiography—	
Physical Geography of the Canadian Eastern Arctic	10
Hydrography	10
Trade—	
Review of External Trade	10
The Canadian Wheat Board	15
The Royal Commission on Co-operatives	10
Transportation—	
Canada's Northern Airfields	10
The Wartime Role of Steam Railways in Canada	10
Radio—	
History and Development of the Canadian Broadcasting Corporation	10
Water Power—	
Water-Power Resources of Canada and Their Utilization	10
Welfare Services —	
Trends in the Field of Social Welfare	15
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FRENCH EDITIONS

Article	Price
Agriculture—	cts.
Irrigation dans l'Ouest du Canada	10
Art, Literature and the Press—	
Le rôle démocratique de la presse	10
Constitution and Government—	
Rang occupé par le Canada dans le commonwealth des nations britanniques	10
Relations entre le Dominion et les provinces	10
Forestry—	
Industrie de la pulpe et du papier au Canada	10
Insectes nuisibles à la fôret	10

Article	Price
Manufacturing—	cts.
L'industrie de l'automobile	10
Mining—	
Dépôts houillers et ressources houillères du Canada	10
Perspective de l'industrie minérale	10
Trade—	
Commission royale sur les coopératives	10
Transportation—	
Champs d'aviation du Canada septentrional	10

WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In Canada, as a rule, the imperial system of weights and measures is followed. An exception, however, is the ton where, unless otherwise stated, the short ton of 2,000 lb. is meant.

The following table shows the weights and measures used in Canada in connection with the principal field crops and for wheat flour and fruits:—

Grains—	*Pounds Per Bushel*
Wheat	60
Oats	34
Barley	48
Rye	56
Buckwheat	48
Flaxseed	56
Corn	56
Mixed grains	50
All others	60

Wheat Flour—

1 barrel equals 196 pounds and approximately 4·5 bushels of wheat are used in the production of a barrel of flour.

Fruits (standard conversions)—	*Pounds*
Apples, per barrel	135
Apples, per box	43
Pears, per bushel	50
Plums " "	50
Cherries " "	50
Peaches " "	50
Grapes " "	50
Pears, per box	42
Strawberries per quart	1·25
Raspberries " "	1·25
Loganberries " "	1·25

Relative Weights and Measures, Imperial and United States

The following tables of coefficients may be used to translate amounts expressed in one unit to the other or vice versa.

1 Imperial pint = 20 fluid ounces.
1 United States pint = 16 fluid ounces.
1 Imperial quart = 40 fluid ounces.
1 United States quart = 32 fluid ounces.
1 Imperial gallon = 160 fluid ounces.
1 United States gallon = 128 fluid ounces.
1 Imperial proof gallon = 1·36 United States proof gallon.
1 short ton = 2,000 pounds.
1 long ton = 2,240 pounds.
1 barrel crude petroleum = 35 Imperial gallons.

FISCAL YEARS OF DOMINION AND PROVINCES

The Federal Government fiscal year ends on Mar. 31.

The dates on which the fiscal years of the provinces end are as follows:—

Province	Date
Prince Edward Island	Mar. 31
Nova Scotia	Nov. 30
New Brunswick	Oct. 31
Quebec	Mar. 31
Ontario	Mar. 31
Manitoba	Apr. 30
Saskatchewan	Apr. 30
Alberta	Mar. 31
British Columbia	Mar. 31

Throughout the Year Book, fiscal-year figures are so indicated in the text and headings of tables; in all other cases figures are for calendar years.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA, 1871-1946

Note.—In the following summary, the statistics of fisheries (1871-1911), trade, shipping, the Post Office, the public debt, revenue and expenditure, and the Post Office and Government savings banks relate to the fiscal years ended June 30 up to 1906; subsequently to years ended Mar. 31, except in the case of trade, where, as indicated by footnotes, calendar-year figures are given for certain later years. Agricultural, dairying, fisheries (from 1922), mineral, manufacturing, banking, insurance, loan and trust companies, construction, road transportation, vital, hospital, and immigration statistics relate to the calendar years, and railway statistics to the years ended June 30, 1871-1911, and to the calendar years 1921 and 1931-45. Canal statistics are those of the navigation seasons. The telegraph statistics relate to the fiscal years for Government lines and to the calendar years for other lines.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA

Area of the Dominion of Canada in square miles: Land, 3,462,103; Fresh Water, 228,307; Total 3,690,410.

NOTE.—Dashes in this table indicate that comparable data are not available for the years so indicated.

	Item		1871	1881	1891	1901	1911
	Population—						
1	Prince Edward Island	No.	94,021	108,891	109,078	103,259	93,728
2	Nova Scotia	"	387,800	440,572	450,396	459,574	492,338
3	New Brunswick	"	285,594	321,233	321,263	331,120	351,889
4	Quebec	"	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776
5	Ontario	"	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292
6	Manitoba	"	25,228	62,260	152,506	255,211	461,394
7	Saskatchewan	"	–	–	–	91,279	492,432
8	Alberta	"	–	–	–	73,022	374,295
9	British Columbia	"	36,247	49,459	98,173	178,657	392,480
10	Yukon	"	–	–	–	27,219	8,512
11	Northwest Territories	"	48,000	56,446	98,967	20,129	6,507
	Canada	"	3,689,257	4,324,810	4,833,239	5,371,315	7,206,643
	Vital Statistics—[3]						
12	Births (live)[4]	No.	–	–	–	–	–
	Rates per 1,000		–	–	–	–	–
13	Deaths, all causes[4]	No.	–	–	–	–	–
	Rates per 1,000		–	–	–	–	–
14	Diseases of the heart[5]	No.	–	–	–	–	–
15	Cancer	"	–	–	–	–	–
16	Diseases of the arteries[5]	"	–	–	–	–	–
17	Tuberculosis (all forms)[5]	"	–	–	–	–	–
18	Pneumonia	"	–	–	–	–	–
19	Nephritis	"	–	–	–	–	–
20	Marriages	"	–	–	–	–	–
	Rates per 1,000		–	–	–	–	–
21	Divorces	No.	4	7	10	19	57
	Immigration—						
22	From United Kingdom	No.	–	17,033	22,042	11,810[6]	144,076
23	From United States	"	–	21,822	52,516	17,987[6]	112,028
24	From other countries	"	–	9,136	7,607	19,352[6]	75,184
	Totals	"	27,773	47,991	82,165	49,149[6]	331,288
	Social Aspects of Population—[7]						
	Agriculture—						
25	Area of occupied farms	acre	36,046,401	45,358,141	58,997,995	63,422,338	108,968,715
26	Improved lands	"	17,335,818	21,899,181	27,729,852	30,166,033	48,733,823
27	Gross value of agricultural production	$	–	–	–	–	–
	Field Crops—[8]						
28	Wheat	acre	1,646,781	2,366,554	2,701,213	4,224,542	8,864,514
		bu.	16,723,873	32,350,269	42,223,372	55,572,368	132,077,547
		$	16,993,265	38,820,323	31,667,529	36,122,039	104,816,825
29	Oats	acre	–	–	3,961,356	5,367,655	8,656,179
		bu.	42,489,453	70,493,131	83,428,202	151,497,407	245,393,425
		$	15,966,310	23,967,665	31,702,717	51,509,118	86,796,130
30	Barley	acre	–	–	868,464	871,800	1,283,094
		bu.	11,496,038	16,844,868	17,222,795	22,224,366	28,848,310
		$	8,170,735	11,791,408	8,611,397	8,889,746	14,653,697
31	Corn	acre	–	–	195,101	360,758	293,951
		bu.	3,802,830	9,025,142	10,711,380	25,875,919	14,417,599
		$	2,283,145	5,415,085	5,034,348	11,902,923	5,774,039
32	Potatoes	acre	403,102	464,289	450,190	448,743	464,504
		bu.	47,330,187	55,368,790	53,490,857	55,362,635	55,461,473
		$	15,211,774	13,288,510	21,396,342	13,840,658	27,426,765
33	Hay and clover	acre	3,650,419	4,458,349	5,931,548	6,543,423	8,289,407
		ton	3,818,641	5,055,810	7,693,733	6,943,715	10,406,367
		$	38,869,900	40,446,480	69,243,597	85,625,315	90,115,531
	Total Areas, Field Crops	acre	–	–	15,662,811	19,763,740	30,556,168
	Total Values, Field Crops	$	111,116,606	155,277,427	194,766,934	237,682,285	384,513,795

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[1] Figures are subject to revision. [2] These are intercensal estimates and will be adjusted after the next census. [3] Exclusive of the Territories. [4] By place of occurrence prior to 1941; by place of residence, 1941-45. [5] These figures are not completely comparable owing to changes in classification in 1926 and 1938.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

The length of the Canada-United States boundary is 3,986·8 miles, and that of the Canada-Alaska boundary is 1,539·8 miles. The Canada-Labrador boundary (not surveyed) is estimated at 1,990 miles; the total mainland coast line of Canada (not accurately computed) is estimated at 14,820 miles.

NOTE.—Dashes in this table indicate that comparable data are not available for the years so indicated.

1921	1931	1936	1939	1941	1944	1945	1946[1]	
88,615	88,038	93,000	94,000	95,047	91,000[2]	92,000[2]	94,000[2]	1
523,837	512,846	543,000	561,000	577,962	612,000[2]	621,000[2]	612,000[2]	2
387,876	408,219	433,000	447,000	457,401	462,000[2]	468,000[2]	480,000[2]	3
2,360,510	2,874,662	3,099,000	3,230,000	3,331,882	3,500,000[2]	3,561,000[2]	3,630,000[2]	4
2,933,662	3,431,683	3,606,000	3,708,000	3,787,655	3,965,000[2]	4,004,000[2]	4,107,000[2]	5
610,118	700,139	711,216[10]	726,000	729,744	732,000[2]	736,000[2]	726,923[10]	6
757,510	921,785	931,547[10]	906,000	895,992	846,000[2]	845,000[2]	832,688[10]	7
588,454	731,605	772,782[10]	786,000	796,169	818,000[2]	826,000[2]	803,330[10]	8
524,582	694,263	745,000	792,000	817,861	932,000[2]	949,000[2]	1,003,000[2]	9
4,157	4,230	5,000	5,000	4,914	5,000[2]	5,000[2]	8,000[2]	10
8,143	9,316	11,000	12,000	12,028	12,000[2]	12,000[2]	16,000[2]	11
8,787,949	10,376,786	10,950,000	11,267,000	11,506,655	11,975,000[2]	12,119,000[2]	12,307,000[2]	
–	240,473	220,371	229,468	255,224	284,220	288,730	–	12
–	23·2	20·2	20·3	22·2	23·8	23·9	–	
–	104,517	107,050	108,951	114,500	116,052	113,414	–	13
–	10·1	9·8	9·6	10·0	9·7	9·4	–	
–	13,734	16,424	18,562	26,602	29,148	29,705	–	14
–	9,578	11,694	12,399	13,417	14,271	14,439	–	15
–	5,957	9,112	10,884	2,266	2,349	2,210	–	16
–	7,616	6,763	5,977	6,072	5,724	5,546	–	17
–	7,011	7,313	6,596	5,955	5,940	5,549	–	18
–	5,168	6,402	6,538	7,399	7,124	6,926	–	19
–	66,591	80,904	103,658	121,842	101,496	108,031	–	20
–	6·4	7·4	9·2	10·6	8·5	8·9	–	
558	700	1,570	2,068	2,461	3,788	5,076	–	21
43,772	7,678	2,197	3,544	2,300	7,713	14,677	51,408	22
23,888	15,195	4,876	5,649	6,594	4,509	6,394	11,469	23
24,068	4,657	4,570	7,801	435	579	1,651	8,842	24
91,728	27,530	11,643	16,994	9,329	12,801	22,722	71,719	
140,887,903	163,119,231	–	–	174,673,535	–	–	–	25
70,769,548	85,733,309	–	–	92,385,920	–	–	–	26
1,386,126,000	836,441,000	1,067,555,000	1,224,616,000	1,432,601,000	–	–	–	27
17,835,734	26,355,136	25,604,800	26,756,500	21,882,000	23,284,000	23,414,000	25,900,000	28
226,508,411	321,325,000	219,218,000	520,623,000	314,825,000	416,635,000	318,512,000	420,725,000	
374,178,601	123.550,000	205,327,000	282,151,000	171,875,000	440,446,000	367,467,000	480,215,000	
13,879,257	12,837,736	13,287,700	12,789,900	12,266,000	14,315,000	14,393,000	13,163,000	29
364,989,218	328,278,000	271,778,000	384,407,000	305,575,000	499,643,000	381,596,000	400,069,000	
180,989,587	77,970,000	116,267,000	114,843,000	125,920,000	268,292,000	203,113,000	210,656,000	
2,043,669	3,791,395	4,437,600	4,347,400	5,304,000	7,291,000	7,350,000	6,731,000	30
42.956,049	67,382,600	71,922,000	103,147,000	110,566,000	194,712,000	157,757,000	159,887,000	
33,514,070	17,465,000	49,512,000	35,424,000	47,651,000	132,191,000	105,452,000	105,930,000	
204,775	131,829	164,400	183,200	300,000	270,000	237,000	247,000	31
10,822,278	5,449,000	6,083,000	8,097,000	12,036,000	11,700,000	10,365,000	10,542,000	
7,081,140	2,274,000	4,258,000	4,453,000	8,599,000	11,557,000	10,774,000	11,157,000	
534,621	591,804	502,100	517,700	507,000	535,000	508,000	521,000	32
62,230,052	52,305,000[9]	39,614,000[9]	36,390,000[9]	39,052,000[9]	49,409,000[9]	35,986,000[9]	48,031,000[9]	
44,635,547	22,359,000	45,125,000	41,065,000	48,274,000	75,391,000	81,168,000	76,164,000	
8,678,883	9,114,457	8,784,100	8,836,600	9,559,000	10,120,000	10,219,000	10,223,000	33
8,829.915	14,539,600	13,803,000	13,377,000	12,632,000	15,102,000	17,724,000	14,739,000	
174,110,386	110,110,000	105,703,000	112,305,000	158,723,000	192,837,000	213,769,000	177,768,000	
47,553,418	58,862,305	58,146,850	59,224,600	56,788,400	62,672,350	62,781,300	63,282,100	
933,045,936	435,966,400	612,300,400	685,839,000	683,889,000	1,375,065,000	1,149,685,000	1,245,254,000	

[6] Fiscal year. [7] For statistics of population in its social aspects, e.g., education, culture, crime, health and welfare, see the end of the summary, p. xxvi-xxvii. [8] Figures for the decennial census years 1871-1921 are for the next preceding years; those for 1871 are for the four original provinces only. [9] Cwt. [10] Quinquennial census figures.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item		1871	1881	1891	1901	1911
	Live Stock and Poultry—[2]						
1	Horses	No.	836,700	1,059,400	1,470,600	1,577,500	2,599,000
		$	–	–	–	118,279,000	381,916,000
2	Milk cows	No.	1,251,200	1,595,800	1,857,100	2,408,700	2,645,200
		$	–	–	–	69,238,000	111,833,000
3	Other cattle	No.	1,373,100	1,919,200	2,263,500	3,167,800	3,880,900
		$	–	–	–	54,197,000	84,021,000
4	Sheep	No.	3,155,500	3,048,700	2,563,800	2,510,200	2,174,300
		$	–	–	–	10,491,000	10,702,000
5	Swine	No.	1,366,100	1,207,600	1,733,900	2,353,800	3,634,800
		$	–	–	–	16,446,000	26,987,000
6	All poultry	No.	–	–	14,105,100	17,922,700	31,793,300
		$	–	–	–	5,724,000	14,654,000
	Total Values, Live Stock and Poultry	$	–	–	–	274,375,000	630,113,000
	Dairying—[3]						
7	Total milk production	'000 lb.	–	–	–	6,866,834	9,806,741
8	Cheese, factory[4]	lb.	–	54,574,856	97,418,855	220,833,269	199,904,205
		$	–	5,457,486	9,741,886	22,221,430	21,587,124
9	Butter, creamery	lb.	–	1,365,912	3,654,364	36,066,739	64,489,398
		$	–	341,478	913,591	7,240,972	15,597,807
10	Butter, dairy	lb.	–	102,545,169	111,577,210	105,343,076	137,110,200
		$	–	–	–	21,384,644	30,269,497
11	Other dairy products[5]	$	–	–	–	15,623,907	35,927,426
	Total Values, Dairy Products	$	–	22,743,939	30,315,214	66,470,953	103,381,854
	Furs—						
12	Pelts taken	No.	–	–	–	–	–
		$	–	–	–	–	–
13	Value of animals on fur farms	$	–	–	–	–	–
	Forestry—						
14	Primary forest production	$	–	–	–	–	–
15	Lumber production	M ft. b.m.	–	–	–	–	4,918,202
		$	–	–	–	–	75,830,954
16	Total sawmill products	$	–	–	–	–	–
17	Pulp and paper products	$	–	–	–	–	–
18	Exports of wood, wood products, and paper[6]	$	–	–	25,351,085	33,099,915	56,334,695
19	**Fisheries**	$	7,573,199	15,817,162	18,977,874	25,737,153	34,667,872
	Mineral Production—						
20	Gold[7]	oz.	105,187	63,524	45,018	1,167,216	473,159
		$	2,174,412	1,313,153	930,614	24,128,503	9,781,077
21	Silver	oz.	–	355,083[8]	414,523	5,539,192	32,559,044
		$	–	347,271[8]	409,549	3,265,354	17,355,272
22	Copper	lb.	–	3,260,424[8]	9,529,401	37,827,019	55,648,011
		$	–	366,798[8]	1,226,703	6,096,581	6,886,998
23	Lead	lb.	–	204,800[8]	88,665	51,900,958	23,784,969
		$	–	9,216[8]	3,857	2,249,387	827,717
24	Zinc	lb.	–	–	–	788,000[9]	1,877,479
		$	–	–	–	36,011[9]	108,105
25	Nickel	lb.	–	830,477[10]	4,035,347	9,189,047	34,098,744
		$	–	498,286[10]	2,421,208	4,594,523	10,229,623
26	Pig-iron	long ton	–	22,167[8]	21,331	244,979	819,228
27	Coal	short ton	1,063,742[12]	1,537,106	3,577,749	6,486,325	11,323,388
		$	1,763,423[12]	2,688,621	7,019,425	12,699,243	26,467,646
28	Natural gas	M cu. ft.	–	–	–	–	–
		$	–	–	150,000[13]	339,476	1,917,678
29	Petroleum, crude	bbl.	–	368,987	755,298	622,392	291,092
		$	–	–	1,010,211	1,008,275	357,073
30	Asbestos	short ton	–	–	9,279	40,217	127,414
		$	–	–	999,878	1,259,759	2,943,108
31	Cement	bbl.	–	69,843[8]	93,479	450,394	5,692,915
		$	–	81,909[8]	108,561	660,030	7,644,537
	Totals, Mineral Production[14]	$	–	10,221,255[15]	18,976,616	65,797,911	103,220,994

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[1] Figures are subject to revision. [2] On farms only. [3] Figures for the decennial census years 1881-1921 are for the next preceding years. In the Censuses of 1881 and 1891 values only were given of factory butter and cheese; quantities have been calculated by reckoning cheese at 10 cents per lb. and butter at 25 cents. [4] Data shown for 1942-46 represent cheddar and factory cheese other than cheddar in all provinces; prior to 1942 the figures include other cheese for Quebec only. [5] Prior to 1921 this item does not include skim milk and buttermilk.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1944	1945	1946[1]	
3,451,800	3,113,900	2,877,500	2,824,340	2,788,800	2,735,000	2,585,000	2,397,000	1
414,808,000	205,087,000	206,990,000	189,768,000	184,461,000	205,630,000	177,632,000	174,414,000	
3,086,700	3,371,900	3,805,400	3,873,500	3,623,900	3,930,000	3,998,000	3,914,000	2
188,518,000	160,655,000	139,916,000	179,807,000	191,085,000	382,874,000	389,935,000	429,135,000	
5,282,800	4,601,100	5,023,600	4,601,100	4,893,400	6,416,000	6,760,000	6,471,000	3
146,567,000	94,952,000	114,126,000	151,087,000	138,308,000	314,027,000	343,699,000	357,597,000	
3,200,500	3,627,100	3,159,400	3,365,800	2,840,100	3,726,000	3,622,000	3,378,000	4
20,675,000	19,680,000	17,064,000	22,511,000	17,039,000	36,959,000	33,915,000	33,274,000	
3,324,300	4,699,800	4,135,800	4,294,000	6,081,400	7,741,000	6,026,000	5,377,000	5
35,869,000	33,288,000	45,344,000	59,213,000	54,912,000	142,219,000	121,323,000	121,637,000	
37,185,800	65,468,000	59,339,400	61,139,800	63,471,000	91,644,000	89,505,000	90,285,000	6
38,015,000	45,138,000	40,366,000	46,459,700	27,412,000	82,201,000	82,521,000	91,696,000	
844,452,000	558,800,000	563,806,000	648,845,700	613,217,000	1,163,910,000	1,149,025,000	1,207,753,000	
10,976,236	14,339,686	15,122,426	15,781,104	16,549,902	17,624,038	17,626,772	16,937,028	7
149,201,856	113,956,639	119,123,483	125,475,359	124,673,351	181,896,679	188,729,000	147,320,000	8
39,100,872	12,824,695	15,565,813	15,311,782	24,737,037	42,140,000	42,734,000	37,809,000	
111,691,718	225,955,246	250,931,777	267,612,546	285,848,196	298,777,262	293,811,000	271,366,000	9
63,625,203	50,198,878	57,662,160	61,748,399	93,199,557	101,536,000	101,405,000	104,651,000	
103,487,506	98,590,000	95,405,000	103,722,000	82,796,000	54,580,000	53,283,000	54,225,000	10
50,181,000	20,098,000	17,645,000	19,098,000	24,373,000	19,614,000	18,756,000	21,144,000	
135,816,439	109,262,600	107,606,628	122,303,815	159,363,878	230,298,200	237,032,000	258,363,000	11
288,723,514	192,384,173	198,479,601	218,461,996	301,673,472	393,027,200	399,927,000	421,967,000	
2,936,407	4,060,356	4,596,713	6,492,222	7,257,337	6,324,240	6,994,686	–	12
10,151,594	11,803,217	15,464,883	14,286,937	21,123,161	33,147,392	31,001,456	–	
5,977,545	8,497,237	9,838,280	6,920,464	7,928,971	11,548,914	–	–	13
168,054,024	141,123,930	134,804,228	157,747,398	213,163,089	301,570,823	–	–	14
2,869,307	2,497,553	3,412,151	3,976,882	4,941,084	4,512,232	4,514,160	–	15
82,448,585	45,977,843	61,965,540	78,331,839	129,287,703	170,351,406	181,045,952	–	
116,891,191	62,769,253	80,343,291	100,132,597	163,412,292	216,556,623	231,108,030	–	16
151,003,165	174,733,954	185,144,603	208,152,295	334,429,175	369,846,086	398,804,515	–	17
284,561,478	185,493,491	210,206,707	242,541,043	387,113,232	440,901,011	488,040,542	–	18
34,931,935	30,517,306	39,165,055	40,075,922	62,258,997	89,427,508	113,690,630	–	19
926,329	2,693,892	3,748,028	5,094,379	5,345,179	2,922,911	2,696,727	2,807,643	20
19,148,920	58,093,396	131,293,421	184,115,951	205,789,392	112,532,073	103,823,990	103,180,880	
13,543,198	20,562,247	18,334,487	23,163,629	21,754,408	13,627,109	12,942,906	12,676,928	21
8,485,355	6,141,943	8,273,804	9,378,490	8,323,454	5,859,656	6,083,166	10,604,250	
47,620,820	292,304,390	421,027,732	608,825,570	643,316,713	547,070,118	474,914,052	371,085,128	22
5,953,555	24,114,065	39,514,101	60,934,859	64,407,497	65,257,172	59,322,261	47,013,560	
66,679,592	267,342,482	383,180,909	388,569,550	460,167,005	304,582,198	346,994,472	354,444,076	23
3,828,742	7,260,183	14,993,869	12,313,768	15,470,815	13,706,199	17,349,723	23,924,975	
53,089,356	237,245,451	333,182,736	394,533,860	512,381,636	550,823,353	517,213,604	471,833,216	24
2,471,310	6,059,249	11,045,007	12,108,244	17,477,337	23,685,405	33,308,556	36,850,174	
19,293,060	65,666,320	169,739,393	226,105,865	282,258,235	274,598,629	245,130,983	190,811,179	25
6,752,571	15,267,453	43,876,525	50,920,305	68,656,795	69,204,152	61,982,133	46,844,738	
593,829	420,038	678,231	755,731	1,528,053[11]	1,852,628[11]	1,777,949[11]	1,403,758[11]	26
15,057,493	12,243,211	15,229,182	48,676,990	18,225,921	17,026,499	16,506,713	17,692,052	27
72,451,656	41,207,682	45,701,934	15,692,698	58,059,630	70,433,169	67,588,402	74,418,107	
14,077,601	25,874,723	28,113,348	35,185,146	43,495,353	45,067,158	48,411,585	46,902,000	28
4,594,164	9,026,754	10,762,243	12,507,307	12,665,116	11,422,541	12,309,564	11,354,000	
187,541	1,542,573	1,500,374	7,826,301	10,133,838	10,099,404	8,482,796	7,668,000	29
641,533	4,211,674	3,421,767	9,846,352	14,415,096	15,429,900	13,632,248	14,961,000	
92,761	164,296	301,287	364,472	477,846	419,265	466,897	549,497	30
4,906,230	4,812,886	9,958,183	15,859,212	21,468,840	20,619,516	22,805,157	24,490,695	
5,752,885	10,161,658	4,508,718	5,731,264	8,368,711	7,190,851	8,471,679	–	31
14,195,143	15,826,243	6,908,192	8,511,211	13,063,588	11,621,372	14,246,480	–	
171,923,342	230,434,726	361,919,372	474,602,059	560,241,290	485,819,114	498,755,181	493,840,428	

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[6] Fiscal years prior to 1926. [7] As from 1932 the values include exchange equalization. [8] 1887. [9] 1898. [10] 1889. [11] Short tons. [12] 1874. [13] 1892. [14] Includes other items not specified. [15] 1886.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item		1871	1881	1891	1901	1911
	Central Electric Stations—						
1	Power houses	No.	–	–	80	58	266
2	Capital invested	$	–	–	4,113,771	11,891,025	110,838,746
3	Power generated[2]	kwh.	–	–	–	–	–
4	Customers	No.	–	–	–	–	–
	Water Power—						
5	Turbine H.P. installed	No.	–	–	71,219	238,902	1,363,134
	Manufactures—[3]						
6	Employees	No.	187,942	254,935	369,595	339,173	515,203
7	Capital	$	77,964,020	165,302,623	353,213,000	446,916,487	1,247,583,609
8	Salaries and wages	$	40,851,009	59,429,002	100,415,350	113,249,350	241,008,416
9	Values of materials used in	$	124,907,846	179,918,593	250,759,292	266,527,858	601,509,018
	Products—						
10	Gross	$	221,617,773	309,676,068	469,847,886	481,053,375	1,165,975,639
11	Net	$	96,709,927	129,757,475	219,088,594	214,525,517	564,466,621
	Construction—						
12	Values of contracts awarded	$	–	–	–	–	345,425,000
	Wholesale and Retail Trade—[5]						
	Wholesale—						
13	Establishments	No.	–	–	–	–	–
14	Employees	"	–	–	–	–	–
15	Net sales	$	–	–	–	–	–
16	Retail—Stores	No.	–	–	–	–	–
17	Employees, full-time	"	–	–	–	–	–
18	Net sales	$	–	–	–	–	–
	Retail Services—						
19	Establishments	No.	–	–	–	–	–
20	Employees, full-time	"	–	–	–	–	–
21	Receipts	$	–	–	–	–	–
	Foreign Trade—						
22	Exports [8],[9]	$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,553
23	Imports [8],[10]	$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,603
	Totals, Foreign Trade[8]	$	141,844,412	174,433,030	200,205,692	355,362,305	727,041,156
24	Total exports to British Empire[11]	$	–	–	47,137,203	100,748,097	148,967,442
25	Exports to United Kingdom[11]	$	21,733,556	42,637,219	43,243,784	92,857,525	132,156,924
26	Total imports from British Empire[11]	$	–	–	44,337,052	46,653,228	129,467,647
27	Imports from United Kingdom[11]	$	48,498,202	42,885,142	42,018,943	42,820,334	109,934,753
28	Exports to United States[11]	$	29,164,358	34,038,431	37,743,420	67,983,673	104,115,823
29	Imports from United States[11]	$	27,185,586	36,338,701	52,033,477	107,377,906	275,824,265
	Exports, Domestic, by Chief Items—[11]						
30	Wheat	bu.	1,748,977	2,523,673	2,108,216	9,739,758	45,802,115
		$	1,981,917	2,593,820	1,583,084	6,871,939	45,521,134
31	Wheat flour	bbl.	306,339	439,728	296,784	1,118,700	3,049,046
		$	1,609,849	2,173,108	1,388,578	4,015,226	13,854,790
32	Oats	bu.	42,386	2,926,532	260,569	8,155,063	5,431,662
		$	231,227	1,191,873	129,917	2,490,521	2,144,846
33	Hay	ton	23,487	168,381	65,083	252,977	326,132
		$	290,217	1,813,208	559,489	2,097,882	2,723,291
34	Bacon and hams, shoulders and	cwt.	103,444	103,547	75,542	1,055,495	598,745
	sides.	$	1,018,918	758,334	628,469	11,778,446	8,526,432
35	Butter	lb.	15,439,266	17,649,491	3,768,101	16,335,528	3,142,682
		$	3,065,234	3,573,034	602,175	3,295,663	744,288
36	Cheese	lb.	8,271,439	49,255,523	106,202,140	195,926,397	181,895,724
		$	1,109,906	5,510,443	9,508,800	20,696,951	20,739,507
37	Silver	oz.	–	–	–	4,022,019	33,731,010
		$	595,261	34,494	238,367	2,420,750	17,269,168
38	Copper[12]	lb.	6,246,000	39,604,000	10,994,498	26,345,776	55,005,342
		$	120,121	150,412	505,196	2,659,261	5,575,073

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[1] Figures are subject to revision. [2] In thousands. [3] The statistics of manufactures in 1871, 1881 and 1891 include all establishments irrespective of the number of employees. From 1901, statistics are for establishments with five hands or over. The figures shown for census years prior to 1921 are for the preceding year. From 1922, statistics are exclusive of construction hand trades, repair and custom work. Figures for 1931-45 include non-ferrous metal smelting not included in earlier years. [4] Since 1924 the net value of production is computed by subtracting the cost of fuel and electricity as well as the cost of materials from the gross value of the products.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1944	1945	1946[1]	
510	559	561	611	607	626	–	–	1
484,669,451	1,229,988,951	1,483,116,649	1,564,603,211	1,641,460,451	–	–	–	2
5,614,132	16,330,867	25,402,282	28,338,030	33,317,663	40,598,779	40,130,054	–	3
973,212	1,632,792	1,740,793	1,941,663	2,081,270	2,238,023	2,333,230	–	4
2,754,157	6,666,337	7,945,590	8,289,212	8,845,038	10,283,763	10,283,610	10,312,123	5
438,555	528,640	594,359	658,114	961,178	1,222,882	1,119,372	–	6
2,697,858,073	3,705,701,893	3,271,263,531	3,647,024,449	4,905,503,966	–	–	–	7
497,399,761	2,587,566,990	612,071,434	737,811,153	1,264,862,643	2,029,621,370	1,845,773,449	–	8
1,365,292,885	1,221,911,982	1,624,213,996	1,836,159,375	3,296,547,019	4,832,333,356	4,473,668,847	–	9
2,488,987,148	2,555,126,448[4]	3,002,403,814[4]	3,474,783,528[4]	6,076,308,124[4]	9,073,692,519[4]	8,250,368,866[4]	–	10
1,123,694,263	1,252,017,248[4]	1,289,592,672[4]	1,531,051,901[4]	2,605,119,788[4]	4,015,776,010[4]	3,564,315,899[4]	–	11
240,133,300	315,482,000	162,588,000	187,178,500	393,991,300	291,961,800	409,032,700	663,335,100	12
–	13,140	13,140[6]	13,140[6]	24,758	24,758[6]	24,758[6]	24,758[6]	13
–	90,564	90,564[6]	90,564[6]	117,471	117,471[6]	117,471[6]	117,471[6]	14
–	3,325,210,300	3,325,210,300[6]	3,325,210,300[6]	5,290,751,000	5,290,751,000[6]	5,290,751,000[6]	5,290,751,000[6]	15
–	125,003	125,003[6]	125,003[6]	137,331	137,331[6]	137,331[6]	137,331[6]	16
–	238,683	238,683[6]	238,683[6]	297,047	297,047[6]	297,047[6]	297,047[6]	17
–	2,755,569,900	2.208,142,000[7]	2,447,658,000[7]	3,440,902,000	4,124,200,000[7]	4,591,885,000[7]	–	18
–	42,223	42,223[6]	42,223[6]	49,271	49,271[6]	49,271[6]	49,271[6]	19
–	55,257	55,257[6]	55,257[6]	62,781	62,781[6]	62,781[6]	62,781[6]	20
–	249,455,900	249,455,900[6]	249,455,900[6]	254,678,000	254,678,000[6]	254,678,000[6]	254,678,000[6]	21
800,149,296	587,653,440	937,824,933	924,926,104	1,621,003,175	3,439,953,165	3,218,330,353	2,312,215,301	22
799,478,483	628,098,386	635,190,844	751,055,534	1,448,791,650	1,758,898,197	1,585,775,142	1,927,279,402	23
1,599,627,779	1,215,751,826	1,573,015,777	1,675,981,638	3,069,794,825	5,198,851,362	4,804,105,495	4,239,494,703	
403,452,219	219,781,406	479,646,028	430,806,546	878,640,907	1,620,450,900	1,486,847,837	904,700,873	24
312,844,871	170,597,455	395,351,950	328,099,242	658,228,354	1,235,030,206	963,237,687	597,506,175	25
266,002,688	151,999,922	189,319,021	188,900,276	359,942,070	220,353,906	271,668,462	340,500,712	26
213,973,562	109,468,081	122,971,264	114,007,409	219,418,957	110,598,584	140,517,448	201,433,220	27
542,322,967	240,196,849	333,916,949	380,392,047	599,713,463	1,301,322,402	1,196,976,726	887,940,676	28
856,176,820	393,775,289	369,141,513	496,898,466	1,004,498,152	1,447,225,915	1,202,417,634	1,405,296,699	29
129,215,157	194,825,612	243,041,530	162,904,586	196,646,340	291,679,709	329,672,842	157,529,350	30
310,952,138	117,871,254	226,913,763	109,050,542	161,856,075	384,150,471	475,786,639	250,305,507	
6,017,032	5,697,224	4,850,071	5,342,172	11,439,191	13,938,631	13,730,584	14,984,287	31
66,520,490	20,207,319	20,638,718	16,378,301	44,807,353	90,001,207	97,854,944	126,733,077	
14,321,048	11,177,072	8,488,040	12,115,598	7,691,664	83,392,645	71,116,842	30,238,797	32
14,152,033	3,767,918	3,136,891	4,142,375	3,295,148	60,863,632	47,659,619	23,108,066	
179,398	89,056	127,996	94,191	33,412	335,023	145,566	208,076	33
4,210,594	839,278	989,557	773,782	391,605	5,644,399	2,619,934	3,318,492	
982,338	127,752	1,580,496	1,878,251	4,646,140	6,957,574	4,498,346	2,892,916	34
31,492,407	2,035,382	25,957,012	32,656,049	77,494,498	148,300,639	96,493,111	66,388,591	
9,739,414	10,680,500	5,128,800	12,398,600	1,481,800	4,726,700	5,598,300	4,509,400	35
5,128,831	2,329,853	1,178,916	2,673,765	493,525	1,881,278	2,235,749	2,003,302	
133,620,340	84,788,400	81,890,300	90,944,800	92,331,000	131,429,200	135,409,300	106,495,400	36
37,146,722	10,594,917	11,347,125	12,248,650	13,554,911	27,062,454	27,909,305	21,947,738	
13,331,050	18,666,367	16,130,875	21,030,580	17,235,320	5,966,982	4,956,103	4,180,506	37
11,127,432	5,399,259	7,283,547	8,525,173	6,585,443	2,933,419	2,597,010	3,490,421	
36,167,900	48,761,200	45,519,600	121,500,900	95,538,700	55,978,500	38,589,200	35,255,800	38
4,336,972	3,891,045	2,971,042	8,505,064	6,687,709	3,918,495	2,701,244	2,467,906	

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[5] Census figures for calendar years, 1930 and 1940 respectively. [6] These data are collected at the decennial censuses only and the 1931 and 1941 figures are given. [7] Estimated on basis of intercensal survey of larger establishments. [8] Fiscal years prior to 1921. [9] Exports of domestic merchandise only. [10] Imports of merchandise for home consumption. [11] Fiscal years 1921 and prior years; calendar years 1931-46. [12] Copper, fine, contained in ore, matte, regulus, etc.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item		1871	1881	1891	1901	1911
	Exports, Domestic, by Chief Items—concluded[2]						
1	Nickel	lb.	–	–	5,352,043	9,537,558	34,767,523
		$	–	–	240,499	958,365	3,842,332
2	Coal	ton	318,287	420,055	833,684	1,888,538	2,315,171
		$	662,451	1,123,091	2,916,465	5,307,060	6,014,095
3	Asbestos	ton	–	–	7,022	26,715	69,829
		$	–	–	513,909	864,573	2,076,477
4	Wood-pulp	cwt.	–	–	–	–	6,588,655
		$	–	–	280,619	1,937,207	5,715,532
5	Newsprint paper	cwt.	–	–	–	–	–
		$	–	–	–	–	3,092,437
	Exports, Domestic, by Classes—[2]						
6	Vegetable products (except chemicals, fibres, and wood)	$	–	–	13,742,557	25,541,567	84,368,425
7	Animals and their products (except chemicals and fibres)	$	–	–	36,399,140	68,465,332	69,693,263
8	Fibres, textiles, and textile products	$	–	–	872,628	1,880,539	1,818,931
9	Wood, wood products, and paper	$	–	–	25,351,085	33,099,915	56,334,695
10	Iron and its products	$	–	–	556,527	3,778,897	9,884,346
11	Non-ferrous metals and their products	$	–	–	1,618,955	33,395,096	34,000,996
12	Non-metallic minerals and their products (except chemicals)	$	–	–	3,988,584	7,356,444	10,038,493
13	Chemicals and allied products	$	–	–	851,211	791,855	3,088,840
14	All other commodities	$	–	–	5,291,051	3,121,741	5,088,564
	Totals, Exports, Domestic	$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,553
	Imports for Consumption—[2]						
15	Vegetable products (except chemicals, fibres, and wood)	$	–	–	24,212,140	38,036,146	79,214,041
16	Animals and their products (except chemicals and fibres)	$	–	–	8,080,862	14,022,896	30,671,908
17	Fibres, textiles, and textile products	$	–	–	28,670,141	37,284,752	87,916,282
18	Wood, wood products, and paper	$	–	–	5,203,490	8,196,901	26,851,936
19	Iron and its products	$	–	–	15,142,615	29,955,936	91,968,180
20	Non-ferrous metals and their products	$	–	–	3,810,626	7,167,318	27,579,572
21	Non-metallic minerals and their products (except chemicals)	$	–	–	14,139,024	21,255,403	53,430,475
22	Chemicals and allied products	$	–	–	3,697,810	5,684,999	12,471,730
23	All other commodities	$	–	–	8,577,246	16,326,568	42,620,479
	Totals, Imports	$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,603
	Steam Railways—						
24	Miles in operation	No.	2,695	7,331	13,838	18,140	25,400
25	Capital	$	257,035,188[3]	284,419,293	632,061,440	816,110,837	1,528,689,201
26	Passengers	No.	5,190,416[4]	6,943,671	13,222,568	18,385,722	37,097,718
27	Freight	ton	5,670,836[4]	12,065,323	21,753,021	36,999,371	79,884,282
28	Earnings	$	19,470,539[4]	27,987,509	48,192,099	72,898,749	188,733,494
29	Expenses	$	15,775,532[4]	20,121,418	34,960,449	50,368,726	131,034,785
	Electric Railways—						
30	Miles in operation	No.	–	–	–	553	1,224
31	Capital	$	–	–	–	–	111,532,347
32	Passengers	No.	–	–	–	120,934,656	426,296,792
33	Freight	ton	–	–	–	287,926	1,228,362
34	Earnings	$	–	–	–	5,768,283	20,356,952
35	Expenses	$	–	–	–	3,435,162	12,096,134
	Road Transportation—						
36	Highways, total mileages[6]	No.	–	–	–	–	–
37	Capital expenditure on[6]	$	–	–	–	–	–
38	Motor-vehicles registered	No.	–	–	–	–	21,783
39	Total provincial revenue from licences and operation	$	–	–	–	–	–
	Canals—						
40	Passengers carried	No.	100,377	118,136	146,336	190,428	304,904
41	Freight	ton	3,955,621	2,853,230	2,902,526	5,665,259	38,030,353

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[1] Figures are subject to revision. [2] Fiscal years 1921 and prior years; calendar years 1931-46. [3] 1876. [4] 1875. [5] Duplication eliminated. [6] Fiscal years.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1944	1945	1946[1]	
47,018,300	60,420,300	168,316,400	229,930,400	275,190,300	265,197,100	216,443,300	223,877,200	1
9,405,291	13,188,928	42,987,140	56,522,602	67,679,708	68,400,634	54,778,226	55,204,632	
2,277,202	359,853	411,574	376,203	531,449	1,010,240	840,708	853,922	2
16,501,478	1,909,922	1,792,584	1,666,934	2,596,626	5,984,827	5,303,543	5,921,619	
154,152	70,903	136,547	186,238	220,255	183,209	210,628	215,872	3
12,255,793	3,929,317	7,391,517	12,463,177	14,550,435	14,284,336	16,224,118	16,509,480	
14,363,006	12,450,741	15,089,928	14,110,308	28,234,485	28,161,615	28,690,537	28,215,276	4
71,552,037	30,056,643	31,246,695	31,000,602	85,897,736	101,563,024	106,054,911	113,858,068	
15,112,586	40,164,815	59,861,787	53,174,453	65,240,248	56,115,515	61,178,918	77,154,829	5
78,922,137	107,233,112	103,639,634	115,687,288	154,356,543	157,190,834	179,450,771	265,793,902	
482,140,444	209,760,786	346,980,652	220,118,056	285,708,739	741,265,315	819,445,087	578,487,716	6
188,359,937	70,938,351	124,694,815	131,803,706	201,730,555	372,925,562	398,063,480	358,472,794	7
18,783,884	5,394,084	12,227,387	14,427,669	30,819,633	59,742,201	56,881,105	53,759,827	8
284,561,478	185,493,491	210,206,707	242,541,043	387,113,232	440,901,011	488,040,542	625,591,155	9
76,500,741	19,086,492	52,303,878	63,102,432	239,900,848	772,935,430	555,090,103	227,472,926	10
45,939,377	56,158,939	134,436,740	182,890,103	244,012,336	339,908,279	352,545,645	247,810,065	11
40,345,345	14,976,873	23,974,191	29,332,099	45,172,085	58,398,213	59,555,035	57,360,525	12
20,142,826	10,848,946	17,749,628	24,263,342	58,676,338	100,687,526	111,318,110	67,588,719	13
32,389,669	14,995,478	15,250,935	16,447,654	127,869,409	553,189,628	377,391,246	95,671,574	14
1,189,163,701	587,653,440	937,824,933	924,926,104	1,621,003,175	3,439,953,165	3,218,330,353	2,312,215,301	
259,431,110	134,433,268	126,245,938	127,835,146	171,835,408	212,654,961	235,558,101	310,752,921	15
61,722,390	28,629,914	25,845,624	32,757,666	34,845,584	36,378,816	46,625,324	64,237,006	16
243,608,342	90,151,516	98,915,100	100,866,078	161,138,512	190,575,143	196,761,222	264,120,526	17
57,449,384	34,923,391	27,099,785	33,703,149	36,739,071	43,635,511	49,760,716	69,623,406	18
245,625,703	116,209,368	135,359,104	183,159,650	431,622,365	428,360,899	384,459,898	491,068,506	19
55,651,319	38,666,648	35,040,115	42,108,374	94,758,269	106,650,546	99,119,533	120,281,405	20
206,095,113	106,087,909	115,497,181	132,823,892	189,953,788	271,014,110	265,405,010	332,611,081	21
37,887,449	31,336,994	31,971,047	43,705,905	65,382,196	80,842,673	79,758,655	92,874,113	22
72,688,072	47,659,378	39,216,950	54,095,674	262,516,457	388,785,538	228,326,683	181,710,438	23
1,240,158,882	628,098,386	635,190,844	751,055,534	1,448,791,650	1,758,898,197	1,585,775,142	1,927,279,402	
39,191	42,280	42,552	42,637	42,441	42,336	42,352	–	24
2,164,687,636	4,232,022,088	4,487,605,511	3,367,702,730	3,397,488,564	3,343,866,498	3,490,680,628	–	25
46,793,251	26,396,812	20,497,616	20,482,296	29,779,241	60,335,950	53,407,845	–	26
83,730,829[5]	74,129,694[5]	75,846,566[5]	84,631,122[5]	116,808,091[5]	155,326,332[5]	147,348,566[5]	–	27
458,008,891	358,549,382	334,768,557	367,179,095	538,291,947	796,636,786	774,971,360	–	28
422,581,205	321,025,588	283,345,968	304,373,285	403,733,542	634,774,021	631,497,562	–	29
1,680	1,379	1,247	1,083	1,028	1,020	1,016	–	30
177,187,436	215,818,096	205,062,353	204,581,406	193,532,914	179,905,198	179,713,277	–	31
719,305,441	720,468,361	614,890,897	632,533,152	795,170,569	1,249,707,399	1,316,571,540	–	32
2,282,292	1,977,441	2,265,023	2,313,748	3,265,449	3,769,959	3,639,989	–	33
44,536,832	49,088,310	41,391,927	42,864,150	55,334,647	84,730,173	88,939,451	–	34
35,945,316	35,367,068	28,807,311	29,605,328	37,030,823	58,202,151	64,533,940	–	35
–	378,094	410,448	497,707	561,489	553,305	552,015	–	36
–	66,250,229	34,966,916	62,577,241	37,237,954	31,505,349	32,191,134	–	37
464,805	1,200,668	1,240,124	1,439,245	1,572,784	1,502,567	1,497,081	–	38
–	42,231,027	61,026,358	79,915,560	91,139,300	89,125,479	91,181,795	–	39
230,129	126,633	59,855	62,790	100,092	84,474	88,234	79,298	40
9,407,021	16,189,074	21,468,816	23,391,077	23,453,367	20,615,507	22,320,399	18,654,919	41

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item		1871	1881	1891	1901	1911
	Shipping—						
1	Vessels on the registry............	No.	–	7,394	7,015	6,697	8,088
		ton	–	1,310,896	1,005,475	666,276	770,446
	Sea-Going—[2,3]						
2	Entered........................	ton	2,521,573	4,032,946	5,273,935	7,514,732	11,919,339
3	Cleared.........................	"	2,594,460	4,071,391	5,421,261	7,028,330	10,377,847
4	Totals.......................	"	5,116,033	8,104,337	10,695,196	14,543,062	22,297,186
	Inland International—[2,3]						
5	Entered........................	ton	4,055,198	2,934,503	4,098,434	5,720,575	13,286,102
6	Cleared.........................	"	3,954,797	2,763,592	4,009,018	5,766,171	11,846,257
7	Totals.......................	"	8,009,995	5,698,095	8,107,452	11,486,746	25,132,359
	Coastwise—[2]						
8	Entered........................	ton	–	7,664,863	12,835,774	17,927,959	34,280,669
9	Cleared.........................	"	–	7,451,903	12,150,356	16,516,837	32,347,265
10	Totals.......................	"	–	15,116,766	24,986,130	34,444,796	66,627,934
	Air Transportation—						
11	Miles flown......................	No.	–	–	–	–	–
12	Passenger miles...................	"	–	–	–	–	–
13	Freight carried....................	lb.	–	–	–	–	–
14	Mail carried......................	"	–	–	–	–	–
	Communications—						
15	Telegraphs, Govt., miles of line...	No.	–	1,947	2,699	5,744	8,446
16	Telegraphs, other, miles of line....	"	–	–	27,866	30,194	33,905
17	Telephones......................	"	–	–	–	63,192	302,759[5]
18	Telephones, employees[6]...........	"	–	–	–	–	10,425[5]
19	Radio receiving sets..............	"	–	–	–	–	–
	Post Office—						
20	Revenues.........................	$	803,637	1,344,970	2,515,824	3,421,192	9,146,952
21	Expenditures......................	$	994,876	1,876,658	3,161,676	3,837,376	7,954,223
22	Money orders issued..............	$	4,546,434	7,725,212	12,478,178	17,956,258	70,614,862
	Dominion Finance—						
23	Customs revenues.................	$	11,841,105	18,406,092	23,305,218	28,293,930	71,838,089
24	Excise revenues..................	$	4,295,945	5,343,022	6,914,850	10,318,266	16,869,837
25	War-tax revenues..................	$	–	–	–	–	–
26	Income tax.....................	$	–	–	–	–	–
27	Sales tax......................	$	–	–	–	–	–
28	Total receipts from taxation.......	$	16,320,369	23,942,139	30,220,068	38,612,196	88,707,926
29	Per capita receipts from taxes.....	$	4·42	5·54	6·25	7·19	12·31
30	Total revenues....................	$	19,335,561	29,635,298	38,579,311	52,514,701	117,780,409
31	Revenues per capita...............	$	5·24	6·85	7·98	9·78	16·34
32	Total expenditures................	$	19,293,478	33,796,643	40,793,208	57,982,866	122,861.250
33	Expenditures per capita...........	$	5·23	7·82	8·44	10·79	17·04
34	Gross debt........................	$	115,492,683	199,861,537	289,899,230	354,732,433	474,941,487
35	Assets............................	$	37,786,165	44,465,757	52,090,199	86,252,429	134,899,435
36	Net debt.....................	$	77,706,518	155,395,780	237,809,031	268,480,004	340,042,052
	Provincial Finance—						
37	Revenue, ordinary, totals.........	$	5,518,946	7,858,698	10,693,815	14,074,991	40,706,948
38	Expenditure, ordinary, totals......	$	4,935,008	8,119,701	11,628,353	14,146,059	38,144,511
	Note Circulation—						
39	Bank notes.......................	$	20,914,637	28,516,692	33,061,042	50,601,205	89,982,223
40	Dom. or Bank of Canada notes[9] ..	$	7,244,341	14,539,795	16,176,316	27,898,509	99,921,354
	Chartered Banks—						
41	Capital, paid-up..................	$	37,095,340	59,534,977	60,700,697	67,035,615	103,009,256
42	Assets...........................	$	125,273,631	200,613,879	269,307,032	531,829,324	1,303,131,260
43	Liabilities to the public...........	$	80,250,974	127,176,249	187,332,325	420,003,743	1,097,661,393
44	Deposits payable on demand......	$	–	–	–	95,169,631	304,801,755
45	Deposits payable after notice......	$	–	–	–	221,624,664	568,976,209
46	Totals, Deposits [9,10]	$	56,287,391	94,346,481	148,396,968	349,573,327	980,433,788
	Savings Banks—						
47	Deposits in Post Office............	$	2,497,260	6,208,227	21,738,648	39,950,813	43,330,579
48	Deposits in Government banks....	$	2,072,037	9,628,445	17,661,378	16,098,146	14,673,752
49	Deposits in special banks.........	$	5,766,712	7,685,888	10,982,232	19,125,097	34,770,386
	Loan Companies (Dominion)—						
50	Assets...........................	$	8,392,464	73,906,638	125,041,146	158,523,307	389,701,988
51	Liabilities........................	$	8,392,958	71,965,017	123,915,704	158,523,307	389,701,988

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[1] Figures are subject to revision. [2] Fiscal year figures prior to 1941. [3] In foreign service, which includes sea-going and inland international after 1936. [4] Prior to 1941 Temiskaming and Northern Ontario Railway Commission was not included. [5] As at June 30. [6] Excluding employees on rural lines in Saskatchewan.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1936	1939	1941	1944	1945	1946[1]	
7,482	8,966	9,373	8,419	8,667	9,369	–	–	1
1,223,973	1,484,423	1,367,071	1,287,365	1,271,811	1,645,298	–	–	
12,516,503	28,064,762	28,895,751	31,353,871	31,452,400	28,356,681	29,655,984	30,367,071	2
12,400,226	26,535,387	29,156,876	32,044,242	33,313,400	30,853,811	33,511,617	34,144,608	3
24,916,729	54,600,149	58,052,627	63,398,113	64,765,800	59,210,492	63,167,601	64,511,679	4
14,828,454	17,769,690	14,472,022	13,421,245	–	–	–	–	5
14,903,447	18,542,037	14,998,858	15,008,129	–	–	–	–	6
29,731,901	36,311,727	29,470,880	28,429,374	–	–	–	–	7
28,567,545	47,134,652	42,979,361	45,386,457	48,107,158	43,776,497	48,098,201	45,559,014	8
27,773,668	47,540,555	41,815,616	43,183,652	46,433,320	41,628,639	44,535,356	41,218,108	9
56,341,213	94,675,207	84,794,977	88,570,109	94,540,478	85,405,136	92,633,557	86,777,122	10
294,449	7,046,276	7,100,401	10,969,271	12,508,390	16,189,362	20,087,432	–	11
–	4,073,552	9,653,196	26,107,750	56,723,714	113,886,329	159,163,445	–	12
79,850	2,372,467	22,947,105	21,253,364	16,559,611	12,430,645	14,462,400	–	13
–	470,461	1,161,069	1,900,347	3,411,971	7,296,265	6,418,944	–	14
11,207	9,300	8,893	8,780	9,919[4]	9,366[4]	9,366[4]	–	15
41,577	43,928	44,014	43,684	43,047	43,048	43,081	–	16
902,090	1,364,200	1,266,228	1,397,272	1,562,146	1,751,923	1,848,794	–	17
19,943	23,825	17,775	17,636	20,103	21,978	25,599	–	18
–	523,100	862,109	1,223,502	1,454,717	1,770,900	1,759,100	1,754,351	19
26,331,119	30,416,107	32,507,888	35,288,220	40,383,366	61,070,919	66,071,815	68,635,559	20
24,661,262	36,292,604	30,100,102	35,456,181	38,699,674	48,485,009	54,629,281	57,729,646	21
173,523,322	167,749,651	121,810,839	145,204,787	173,565,550	262,297,331	281,890,291	290,933,503	22
163,266,804	131,208,955	74,004,560	78,751,111	130,757,011	167,882,089	115,091,376	128,876,811	23
37,118,367	57,746,808	44,409,797	51,313,658	88,607,559	142,124,331	151,922,140	186,726,318	24
168,385,327	107,320,633	197,484,627	305,642,025	558,175,014	2,111,032,508	–	–	25
46,381,824	71,048,022	82,709,803	142,026,138	220,471,004	1,036,757,035	977,758,068	932,729,273	26
38,114,539	20,783,944	77,551,974	122,139,067	179,701,224	304,913,484	209,389,876	326,252,799	27
368,770,498	296,276,396	317,311,809	435,706,794	778,175,450	2,436,811,484	2,154,626,648	2,202,358,387	28
41·96	28·55	28·98	38·51	67·63	203·49	177·79	178·95	29
436,292,185	356,160,876	372,595,996	502,171,354	872,169,645	2,765,017,713	2,687,334,799	3,013,185,074	30
49·64	34·32	33·79	44·38	75·80	230·90	221·74	244·84	31
528,302,513	440,008,855	532,585,555	553,063,098	1,249,601,446	5,322,253,505	5,245,611,924	5,136,228,506	32
60·11	42·41	48·29	48·88	108·60	444·45	432·84	417·34	33
2,902,482,117	2,610,265,698	3,431,944,027	3,638,320,816	5,018,928,037	12,359,123,230	15,712,181,527	18,959,846,183	34
561,603,133[7]	348,653,762[7]	425,843,510[7]	485,761,502[7]	1,370,236,588[7]	3,619,038,337[7]	4,413,819,509[7]	5,538,440,734[7]	35
2,340,878.984	2,261,611,937	3,006,100,517	3,152,559,314	3,648,691,449	8,740,084,893	11,298,362,018	13,421,405,409	36
102,030,458	179,143,480	232,616,182	296,836,927	404,791,000[8]	448,975,000[8]	507,921,000[1,8]	–	37
102,569,515	190,754,202	248,141,808	289,467,574	349,818,000[8]	414,155,000[8]	451,074,000[1,8]	–	38
194,621,710	141,969,350	119,507,306	94,064,907	78,761,049	37,056,187	28,636,174	23,172,717	39
271,531,162	153,079,362	105,275,223	184,904,919	406,433,409	943,576,233	1,078,988,028	1,125,986,281	40
129,096,339	144,674,853	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000	41
2,841,782,079	3,066,018,472	3,144,506,755	3,591,564,586	4,008,381,256	5,990,410,887	6,743,217,134	7,429,608,029	42
2,556,454,190	2,741,554,219	2,855,622,232	3,298,351,099	3,711,870,680	5,689,443,095	6,438,617,676	7,123,979,417	43
551,914,643	578,604,394	618,340,561	741,733,241	1,088,198,370	1,863,793,981	1,986,075,142	2,155,312,749	44
1,289,347,063	1,437,976,832	1,518,216,945	1,699,224,304	1,616,129,007	2,272,573,361	2,750,358,254	3,327,057,442	45
2,264,586,736	2,422,834,828	2,614,895,597	3,060,859,111	3,464,781,844	5,422,302,978	6,159,997,976	6,771,555,153	46
29,010,619	24,750,227	22,047,287	23,045,576	22,176,633	28,296,208	33,468,799	35,537,154	47
10,150,189	[11]	[11]	[11]	[11]	[11]	[11]	[11]	48
58,576,775	69,820,422	69,665,415	81,566,754	76,391,775	103,276,757	122,574,607	140,584,525	49
96,698,810	147,094,183	137,210,511	136,358,786	130,795,391	130,945,859	133,774,431	–	50
95,281,122	146,046,087	137,199,814	136,351,602	130,787,116	130,877,350	133,774,429	–	51

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[7] Active assets only.

[8] Fiscal year ended nearest Dec. 31 of the year stated.

[9] As at June 30 from 1871 to 1901. Monthly averages from 1911 to 1946.

[10] Including amounts deposited elsewhere than in Canada from 1901.

[11] Included in Post Office Savings Banks.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item		1871	1881	1891	1901	1911
	Small Loans Companies (Dominion)—						
1	Assets	$	–	–	–	–	–
2	Liabilities	$	–	–	–	–	–
	Loan Companies (Provincial)—						
3	Assets	$	–	–	–	–	–
4	Liabilities	$	–	–	–	–	–
	Trust Companies (Dominion)—						
	ASSETS—						
5	Company funds	$	[3]	[3]	[3]	[3]	[3]
6	Guaranteed funds	$	[3]	[3]	[3]	[3]	[3]
	LIABILITIES—						
7	Company funds	$	[3]	[3]	[3]	[3]	[3]
8	Guaranteed funds	$	[3]	[3]	[3]	[3]	[3]
9	ESTATES, TRUST AND AGENCY FUNDS.	$	[3]	[3]	[3]	[3]	[3]
	Trust Companies (Provincial)—[4]						
	ASSETS—						
10	Company funds (par value)	$	–	–	–	–	–
11	Guaranteed funds (par value)	$	–	–	–	–	–
12	ESTATES, TRUST AND AGENCY FUNDS.	$	–	–	–	–	–
	Dominion Fire Insurance—						
13	Amounts at risk, Dec. 31	$	228,453,784	462,210,968	759,602,191	1,038,687,619	2,279,868,346
14	Premium income for each year	$	2,321,716	3,827,116	6,168,716	9,650,348	20,575,255
15	Losses paid during each year	$	1,549,199	3,169,824	3,905,697	6,774,956	10,936,948
	Provincial Fire Insurance—						
16	Amounts at risk, Dec. 31	$	–	–	–	–	–
17	Premium income for each year	$	–	–	–	–	–
18	Losses paid during each year	$	–	–	–	–	–
	Dominion Life Insurance—[5]						
19	Amounts at risk, Dec. 31	$	45,825,935	103,290,932	261,475,229	463,769,034	950,220,771
20	Premium income for each year	$	1,852,974	3,094,689	8,417,702	15,189,854	31,619,626
21	Net amounts of policies become claims during each year	$	–	–	–	7,182,358	11,434,901
	Provincial Life Insurance—						
22	Amounts at risk, Dec. 31	$	–	–	–	–	–
23	Premium income for each year	$	–	–	–	–	–
24	Net amounts of policies become claims during each year	$	–	–	–	–	–
	Business Transacted—						
25	Bank debits	$'000	–	–	–	–	–
26	**Commercial Failures**	No.	–	–	1,861	1,341	1,332
27	Liabilities	$	–	–	16,723,939	10,811,671	13,491,196
	Education (Provincially-Controlled Schools only)—						
28	Enrolment	No.	803,000	891,000	993,000	1,092,633	1,361,205
29	Averages of daily attendance	"	–	–	–	669,000	870,532
30	Teachers	"	13,559	18,016	23,718	27,126	40,516
31	Public expenditures on	$	–	–	–	11,044,925	37,971,374
	Criminal Statistics—[8]						
32	Convictions, indictable offences	No.	–	3,509[9]	3,974	5,638	11,188
33	Convictions, non-indictable offences	"	–	30,365[9]	33,643	36,510	100,633
	Hospitals—						
34	Other than mental	No.	–	–	–	–	–
35	Bed capacity	"	–	–	–	–	–
36	Patients under treatment	"	–	–	–	–	–
37	Mental	"	–	–	–	–	–
38	Patients under treatment	"	–	–	–	–	–
39	Receipts	$	–	–	–	–	–
40	Expenditures	$	–	–	–	–	–

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[1] Figures are subject to revision. [2] 1922 figures; first year provincial figures made available by the Department of Insurance. [3] Prior to 1920 when the Dominion Department of Insurance took over the administration of the legislation concerning loan companies, the figures are not comparable. They are shown, however, at pp. xl and xli of the 1938 Year Book. [4] Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies, but estimated to cover about 90 p.c. of all provincial business. The figures include all the large and most of the small provincial companies.

STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded

1921	1931	1936	1939	1941	1944	1945	1946[1]	
–	827,373	4,392,390	5,466,679	7,918,926	12,597,846	16,000,830	–	1
–	823,120	4,361,126	5,424,047	7,918,926	12,597,846	16,000,830	–	2
86,144,153[2]	65,728,238	58,909,744	58,526,904	58,220,073	58,728,602	63,680,642	–	3
87,385,807[2]	66,387,987	58,762,522	58,533,671	58,220,073	58,728,602	63,680,642	–	4
10,237,930	15,459,347	16,374,558	20,176,418	20,596,781	21,284,655	22,475,024	–	5
8,774,185	25,718,219	35,456,607	36,001,000	38,570,855	47,741,930	53,149,578	–	6
9,907,331	15,066,431	15,878,061	19,351,839	20,086,776	20,569,310	21,146,056	–	7
8,549,642	25,718,221	35,456,607	36,001,000	38,570,855	47,741,929	53,149,578	–	8
79,252,639	215,698,469	226,024,454	242,369,850	268,596,524	338,978,141	363,332,677	–	9
31,418,403[3]	66,338,148	63,770,447	61,292,364	58,165,471	61,889,195	67,028,647	–	10
32,885,302[3]	125,829,165	121,986,843	114,606,960	108,912,208	123,730,978	136,074,768	–	11
629,953,917[3]	1,961,948,175	2,311,906,898	2,422,219,901	2,418,950,841	2,593,730,389	2,754,475,732	–	12
6,020,513,832	9,544,641,293	9,248,273,260	10,200,346,551	11,386,819,286	14,174,130,630	15,054,848,612	–	13
47,312,564	50,342,669	40,218,296	40,984,276	49,305,539	55,027,051	58,335,728	–	14
27,572,560	29,938,409	14,072,237	15,738,902	17,814,322	28,921,930	30,585,357	–	15
1,269,764,435	1,341,184,333	1,184,852,046	1,284,998,454	1,120,181,968	1,452,775,262	1,491,715,144	–	16
5,545,549	7,185,066	5,002,603	5,750,302	3,992,765	5,616,347	6,205,250	–	17
3,544,820	4,985,605	2,190,624	3,170,597	2,237,832	3,070,639	3,213,221	–	18
2,934,843,848	6,622,267,793	6,403,037,477	6,776,262,587	7,348,550,742	9,139,484,231	9,751,040,835	10,812,294,224	19
98,864,371	225,100,571	200,541,265	198,042,144	203,459,238	244,426,883	261,176,100	–	20
24,014,465	54,410,589	58,086,634	73,936,661	75,082,008	92,566,959	97,638,990	–	21
222,871,178	202,094,301	130,044,228	134,554,434	164,451,218	264,533,974	346,074,464	–	22
4,389,008	5,178,615	3,025,124	3,491,402	3,988,952	7,052,449	8,259,537	–	23
2,812,077	2,603,453	2,195,537	3,178,604	2,583,958	3,038,613	3,361,253	–	24
27,157,474[6]	31,586,468	35,928,607	31,617,352	39,242,957	60,676,954	68,384,813	69,247,607	25
2,451[7]	2,563[7]	1,238	1,299	882	96	95	130	26
73,299,111[7]	52,987,554[7]	11,314,000	11,635,000	6,959,000	2,119,000	2,305,000	4,003,000	27
1,880,805	2,264,106	2,189,450	2,236,342	2,131,391	2,056,743	2,112,351[1]	–	28
1,349,256	1,801,955	1,832,357	1,870,563	1,802,300	1,708,510	1,741,113[1]	–	29
56,607	71,246	71,701	74,549	75,308	74,547	74,957	–	30
112,976,543	144,748,823	114,685,037	122,974,590	129,817,268	184,093,229	194,980,000[1]	–	31
16,169	31,542	36,059	53,125	42,646	42,511	41,965	–	32
155,376	327,778	377,706	431,203	547,556	430,727	455,918	–	33
–	806[10]	903	925	934	853[11]	822[11]	–	34
–	55,285[10]	66,486	61,300	64,466[11]	63,589[11]	63,407[11]	–	35
–	697,183[10]	877,945	925,585	1,104,914	1,322,651	1,402,932	–	36
–	56[10]	57	59	60	59	59	–	37
–	39,986[10]	53,326	56,867	59,203	62,847	64,016	–	38
–	–	14,300,952	16,623,786	19,084,150	21,863,776	22,663,567	–	39
–	–	14,222,138	16,607,041	19,068,996	21,877,537	22,950,837	–	40

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[5] Not including fraternal insurance.

[6] Figures are for 1924, the first year for which bank debits are available.

[7] Includes Newfoundland.

[8] Year ended Sept. 30.

[9] 1886 figures; first year available.

[10] Census figures, applying to calendar year 1930.

[11] Wartime military hospitals not included.

INTRODUCTION

This introduction serves both to give a summary review of the current situation in such a way as to present a general picture of the various parts of the economy of the country and to bring up to date statistics in certain chapters which, because of the need for sending them to press early in the year, are behind hand in their relation to other statistics given towards the end of the book.

Since the end of the War, the domestic picture has been both a challenging and difficult one for business. Selective decontrol as production of consumer goods increased (see Chapter XXIV) has been followed by upward price adjustments. This was to be expected as Government subsidies were withdrawn. However, during 1946 the situation was aggravated by labour troubles of considerable severity for pivotal industries. Disruption of production due to serious strikes occurred, for instance, in the automobile, logging, rubber, steel, electrical apparatus, textiles, coal, base metals and shipping industries, as well as many subsidiary activities. Maladjustment in the supply of materials, especially in the construction industries, resulted: this together with the dislocation of cost-price relationships had an adverse effect so that expected production, which would normally have acted as a counterpoise to rising prices, did not materialize. Many goods and commodities are still (September, 1947) difficult to obtain. The price structure is in places out of balance and in need of adjustment in relation to other economic factors. Nevertheless, in the face of all these difficulties prices have been kept within reasonable bounds and despite the gradual withdrawal of the energizing force funnelled into industry between 1939 and 1945 by Government funds, production has been sufficient to dull the edge of demand. Business has now definitely entered a more selective and competitive phase than at any time since 1939.

Among the more important factors indicating the basic strength of the domestic business situation are: the very strong financial position shown by many companies for the first post-war year; the high activity in the heavy industries, the excellent production and profit record of the pulp and paper and other forest products industries; the sound position of agriculture and the continued prosperity of farmers generally; and the high average pay of industrial workers. All these are influences that point to sustained prosperous conditions if only the international situation can be composed and trade re-established on something like normal lines. A particularly bright spot in the economic picture is the forest products industries. Lumber and pulp and paper are in great demand and this situation promises to continue for some time to come. A heavy responsibility rests upon the Provincial and Federal Governments to see to it that undue depletion of forest resources is not permitted. Fortunately, there is evidence that the authorities are alive to the implications. When it is realized that insect pests and fire actually destroy about 26 p.c. more wood each year than is used by the huge pulp and paper industry which provides a higher export value than any other branch of manufacturing and gave employment in 1945 to about 40,000 employees, the vital need for conservation becomes more apparent.

The national income reflects the sustained level of economic activity and has been maintained at a point that compares well with war years, partly it must be admitted, as a result of higher prices (see Chapter XXIV). No lasting solution of present problems is to be found in a mere bolstering of national income in terms of high prices, but rather in the building up of real values by high and increasing productivity and it is therefore in the direction of increased volume of production that healthy adjustment must be looked for. The demands of consumers have risen with income as goods have become available. For 1946 the national income is estimated at $9,212,000,000 not far below the figure for 1945, viz., $9,587,000,000. This is more than twice the average annual pre-war national income. For the first six months of 1947 all indications point to this level having been maintained.

Foreign trade—the means by which surplus production is exchanged for needed commodities from other parts of the world—is the keystone in the arch of international co-operation and is relatively more important in the case of Canada than in those countries where the production capacity is smaller, population is denser and the level of domestic consumption higher. In this country all surpluses of raw materials, agricultural products and manufactured goods must be exchanged for widely diversified imports. The widening of trade relations that is being promoted by the Department of Trade and Commerce is directed to lessening the present extreme concentration of trade and the building up of a more balanced position.

Never before in peacetime has Canada's foreign trade reached such high levels as in the months following the latest war. In 1946, Canada exported goods valued at $2,312,215,000 while imports at the rate of $1,927,279,000 were recorded. During that year 73 p.c. of all imports came from the United States, whereas only 38 p.c. of exports were taken by that country. Since January 1, 1947, the over-all trade position has strengthened considerably. Thus, for the six months ending June, 1947, total exports of $1,328,459,000 have been about balanced by imports of $1,256,735,000, but the position vis-a-vis the United States has not improved: in fact it has slightly deteriorated inasmuch as almost 80 p.c. of imports over the six-month period came from the United States, whereas only about 36 p.c. of exports were taken by that country. The seriousness of this trade picture lies in the fact that the 64 p.c. of exports taken by countries other than the United States were financed to a large extent by loans and credits made by the Federal Government to the importing countries, which are without effective purchasing power of their own. On the other hand, Canada must continue to meet the large debit balance with the United States from her diminishing United States dollar reserves.

If Canada's greatly expanded industrial capacity is to find export outlets, markets must be found for surplus production on a sound commercial basis. Canada for some time to come must reckon with an impoverished world and with great uncertainties in regard to foreign currencies and exchange controls. The rapid deterioration in Britain's supply of United States dollars, coupled with the failure of European production to expand more rapidly, has made the current situation extremely uncertain. Prospects for the next few years hinge heavily on the rate at which production in European and other countries recovers and this in turn is closely tied up with the amount of aid which may be forthcoming under the Marshall Plan.

Thus our post-war position, although by and large that of a creditor nation, is not without anxiety and depends on the discovery of some formula in the relatively near future whereby collective and competitive factors may be brought into play. Lend-Lease and Mutual Aid were replaced after the War by assistance given to Europe through the machinery of UNRRA. This organization, in turn, has lately terminated its work. It was never intended to be more than a short-range assistance plan until more lasting arrangements could be brought about and, if UNRRA has not fulfilled its first promise of achieving economic recovery for Europe, it has at least avoided collapse. Yet the need for help exists to an extent as great as ever and must be met without loss of time if the interests of all countries, including Canada, are to be best served.

The following paragraphs bring up to date under the various headings the statistics of the national economy and are intended as an Economic Review of the period 1946-47.

Employment.—When the War ended in August, 1945, Canada was faced with the task of changing over suddenly from a wartime to a peacetime basis. Industries engaged in war production had to reconvert their plants and this meant releasing workers until the necessary changes in tools and equipment could be made. In some industries such as aircraft, shipbuilding and the munitions industries many plants were closed down completely and the workers had to seek employment elsewhere. Other new entrants to the labour market arose with the large scale demobilization of armed service personnel which in about a year and a half after the War's end added almost 700,000 to the civilian population, the majority of them returning to civilian employment. A number of factors made it possible for the economy to provide employment for these workers with sufficient ease to avoid the development of serious unemployment. To begin with, from 300,000 to 400,000 persons, many of them women, withdrew from the labour market shortly after the War's end. In addition, many industries which had been short of labour during the War began to expand their employment as soon as more labour became available. This helped to take up slack until plants were ready to start producing on a peacetime basis. The most notable expansions occurred in the construction industry and some of the related material industries, in the telephone industry and in the manufacturing of furniture, farm implements and newsprint. By the middle of 1947 unemployment had fallen to about 90,000, less than 2 p.c. of the total labour force and a near minimum level. At the same time the civilian labour force was nearing the 5,000,000 level and total civilian employment was estimated at about

4,800,000. Many industries were still looking for additional employees and both Provincial and Federal Governments were sponsoring immigration from Europe to help meet this shortage.

Income and Prices.—This high level of employment is symptomatic of the volume of demand for goods of almost every kind. Business firms are building new plants and replacing machinery which was allowed to depreciate during the War. Individuals, in some instances using their accumulated savings, are buying new homes, automobiles, refrigerators, stoves and many other consumer durables which they were denied during the war period. Foreign buyers, aided by the Government's program of loans, have also sought Canadian products of many types especially food and machinery. All of these, when added to the day-to-day requirements of the people for food, clothing and other necessities, have created a demand which the domestic economy cannot immediately fill even when working at its maximum employment level. The consequent pressure of this demand in excess of the available supply of goods has tended to force up price levels as the Government proceeded with its program of orderly decontrol of prices. Higher income levels have accompanied this upward price movement. Between the War's end at August, 1945, and the middle of 1947 the cost-of-living index advanced almost 13 p.c. During this same period food and clothing prices have each increased about 17 p.c. and home furnishings have increased about 19 p.c. Average hourly earnings of manufacturing wage-earners have just kept pace with this price increase with a gain of almost 15 p.c. This gain has not been evenly distributed for many individual industries have shown average gains of 20 p.c. or more. On the other hand, other groups have received little or no increase in income during this period.

Construction.—The war period, during which Canada's entire productive apparatus was focussed on gaining victory, left in its wake many shortages. One of the most severe was in housing accommodation and this shortage became very acute as returning veterans attempted to re-establish homes. Though hampered by a shortage of materials, the industry expanded sufficiently to produce a record total of about 64,000 homes in 1946. A substantial part of this total was built under the Government's Wartime Housing Program, in which the veteran received a priority on occupancy. Despite this progress, the shortage continued and there were indications that high prices throughout the field were causing many people to defer their plans for building new homes. Meanwhile industrial and business construction has continued at a high level and total employment in the industry was back at about its previous peak reached in 1929.

Agriculture.—An acute world shortage of food became clearly apparent shortly after the War's end and has not shown any improvement up to the present (September, 1947). This has helped to sustain the demand for farm products at high levels and farmers as a result have enjoyed continued prosperity. Current estimates place Canada's 1947 grain crops at a level somewhat below that of the previous year but with the higher prices now prevailing this should not result in any marked decline in farm incomes. Shortages of feed grains arising partly out of the late wet spring which curtailed seeding operations and partly out of the dry weather in Western Canada may cause some reduction in the output of live-stock products during the winter months. Current prospective feed-grain supplies are at their lowest level in six years and, inasmuch as a substantial part of these supplies are in Western Canada, special efforts will be needed to move sufficient quantities eastwards to meet the requirements of eastern live-stock producers. Prospects are for a better than average fruit crop in 1947, though in most instances production will be below the 1946 level.

Forestry, Fishing and Trapping.—Expansion in the forestry industries in the past two years has been marked. With the removal of restrictions on the use of electric power in the pulp and paper industry, production of newsprint increased rapidly in the face of an extremely strong demand. This, together with a keen demand for lumber, both at home and on the export market, has brought activity in the woods to record levels. Higher earnings in the logging industry, average weekly earnings are now about 30 p.c. above their level two years earlier, have attracted more than sufficient labour into the woods to replace the departing prisoners of war and employment has risen about 20 p.c. since the War's end. Accompanying this expansion there have been sharp rises in the prices of newsprint, lumber and similar forest products.

During the War the fishing industry gained substantially and by 1945 its value of production was almost three times as high as its average level in the period 1935 to 1939; slightly over one-half of this increase was the result of higher prices, the remainder being due to greater output. The industry has continued to rely on export markets for two-thirds or more of its total output and its future is tied up with these demands. Prices continued to advance after the end of the War and by the end of 1946, reached a peak of 220·6 on the base 1935-39 = 100. Since then prices have receded slightly but they are still higher in comparison with the pre-war period than the prices of other types of meat.

Receding prices have also been present in the fur industry. A decline which set in about the middle of 1946 had brought prices by June, 1947, to the lowest level since early 1941 and only about 15 p.c. above the 1935-39 average. In this industry also the value of production had increased to almost triple the pre-war level by 1945-46, but about two-thirds of this increase was due to higher prices. Here again the export market takes a major part of the industries product and falling prices have been reflected in a sharp drop in the value of furs exported during 1947.

Mining.—Activity in Canada's base metal mines has continued at a high level in the post-war period though in most instances production has receded from war-time peaks. The total value of metallic ores produced in 1946 was down about 9 p.c. from 1945. Gold production is rising but, squeezed between rising wage and material costs and the 10 p.c. decline in its price during 1946, it is still substantially below its pre-war level. Sharply higher prices were allowed for almost all of the non-ferrous metal group at the end of 1946 and a further rise occurred in the spring of 1947 when price controls were discontinued.

In response to the greatly increased demand for building materials, a post-war expansion has been shown in the clay products and other structural materials group. The value of output in this group increased about 27 p.c. during 1946.

Electric Power.—Following a temporary decline in the demand for electric power during the reconversion period consumption has risen sharply and by the winter of 1946 a shortage had developed in some areas. The Hydro-Electric Power Commission of Ontario has begun construction on a number of projects which will add substantially to this industry's productive capacity over the next few years. In comparison with actual expenditures on new capital equipment of $27,000,000 in 1945 and $57,000,000 in 1946, the industry has planned to spend $124,000,000 in 1947.

Manufacturing.—One of the major developments during the war period was the increased contribution of manufacturing to the nation's products. Much of the gain centred in such war industries as aircraft, shipbuilding and munitions of various kinds and it was accompanied by the construction and equipment of a large number of new manufacturing plants under a Government-financed program. At the War's end, when these industries were forced to reduce their production sharply, many of these factories became available for peacetime uses. Some were sold to new or expanding industries; others were purchased directly by the company which had operated the plant during the War.

The extent to which this wartime shift to manufacturing will be retained on a permanent basis is not yet clear. Canada's new synthetic rubber industry and her expanded steel industry are two examples of an expanded industrial capacity which has continued at a high level. Electrical apparatus is another industry that has greatly increased in importance and it now employs more than double the number it did in the pre-war period. On the other hand, because of the present intense demand for goods of all types, Canada is importing many manufactured goods which may be produced to a greater extent in this country when shortages become less acute. Employment in manufacturing fell off sharply at the end of the War but as reconversion progressed it moved up rapidly and currently accounts for about 27 p.c. of total employment (June 1947).

Transportation.—In some respects the return to peacetime production has seen an accentuation rather than an easing of the burden on Canada's railway system. Carloadings have risen to the limit permitted by the available equipment and priorities have been necessary to ensure that the most urgent needs are met. This problem was accentuated by the necessity of diverting lake shipping from grain to coal in the fall of 1946. As a result, during the winter of 1946, the railways were required to haul to export positions a large amount of grain which would normally have been shipped by water. Addition to the railways' equipment was deferred while Canada's output of railway cars and locomotives was sent largely to foreign markets during the first post-war year. Only in early 1947 were substantial orders placed by Canadian railways. Faced with rising costs the railways have applied for permission to increase their freight rates by 20 p.c. and their case is currently being considered by the Board of Transport Commissioners.

Finance.—Government expenditures dropped off sharply at the War's end but revenues, despite a reduction in tax rates, were sufficiently well maintained to yield a surplus of $352,000,000 for the fiscal year 1946-47. Further reductions in the personal income tax became effective at July 1, 1947, and the 15 p.c. excess profits tax will cease at the end of 1947. In the current year revenues have continued to run ahead of expenditures and for the first four months of the fiscal year a surplus of $388,300,000 has been accumulated. Because of lower tax rates in force during the remainder of the year the surplus is not expected to continue at this high level, but it has been a factor in helping to reduce the pressure towards higher prices during the current period.

ERRATA

p. 428—Last line of paragraph 2 should read ", buy bait" instead of "by weight".

p. 459, Table 11—footnote 1 should read "$333,218 in 1945" instead of "$335,218 in 1945".

CHAPTER I.—PHYSIOGRAPHY

CONSPECTUS

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PART I.—GEOGRAPHY*

Main Geographical Features.—Canada comprises the whole northern part of the North American Continent with its islands, except the United States territory of Alaska and the territory of Newfoundland (with Labrador). It embraces the whole Arctic Archipelago between Davis Strait and the connecting waters northward to the 60th meridian on the east and the 141st meridian on the west.

Canada is bounded on the west by the Pacific Ocean and Alaska; on the south by the United States; on the east by the Atlantic Ocean, the waters between Newfoundland and the Gulf of St. Lawrence, Labrador, Davis Strait and the dividing waters between Ellesmere Island and the Danish territory of Greenland; northward it extends to the North Pole.

The southernmost point is Middle Island in Lake Erie, in north latitude 41°41′. From east to west Canada extends from about west longitude 57° at Belle Isle Strait to west longitude 141°, the boundary of Alaska. Canadian territory thus extends over 48° of latitude and 84° of longitude.

The area of the Dominion is 3,690,410 square miles, a figure that may be compared with that of 3,608,787 square miles for Continental United States and Alaska; 3,776,700 the total area of Europe; 2,974,514 the area of Australia; 3,275,510 the area of Brazil; 1,581,079 the area of India (excluding Burma); 120,849 the area of the British Isles. Canada's area is 28 p.c. of the total area of the British Empire, as it is shown at p. 141 of the 1943-44 Year Book.

The sea coast of Canada, one of the longest of any country in the world, comprises the following mileages:—

Mainland—Atlantic 3,068, Pacific 1,579, Hudson Strait 1,245, Hudson Bay 3,157, Arctic 5,771; total 14,820 miles.

Islands— Atlantic 1,518, Pacific 3,979, Hudson Strait 60, Hudson Bay 2,307, Arctic 26,786; total 34,650 miles.

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* Revised by F. H. Peters, Surveyor General and Chief, Hydrographic and Map Service, Department of Mines and Resources, Ottawa.

The Canada-United States Boundary is 3,986·8 miles long and that between Canada and Alaska is 1,539·8 miles; the Canada-Labrador Boundary has not been surveyed but is estimated at 1,990 miles.

The St. Lawrence-Great Lakes system of navigable waterways provides ship transportation from the sea into the very heart of the continent. From the Strait of Belle Isle at the northern entrance to the Gulf of St. Lawrence, the sailing distance to the head of Lake Superior is 2,338 miles; from Montreal to Fort William, the great Canadian grain-shipping port, the distance is 1,215 miles. Throughout its length the waterway gives access to a region rich in natural and industrial resources.

The potentialities of these inland waterways of Canada are enormous since modern canal systems by-pass the unnavigable portions of the St. Lawrence River, link up the various bodies of water of the Great Lakes and are bound to have a much greater economic influence on the future wealth and progress of the nation. There are no tides in these Lakes although considerable variation in water levels is sometimes occasioned by strong winds or heavy precipitation. At the Great Lakes ports and harbours, ships load and unload their cargoes to and from all points in the Dominion.

1.—Approximate Land and Fresh-Water Areas, by Provinces and Territories

NOTE.—For a classification of land area as agricultural, forested, etc., see pp. 32-33.

Province or Territory	Land	Fresh Water	Total	Percentage of Total Area
	sq. miles	sq. miles	sq. miles	
Prince Edward Island	2,184	[1]	2,184	0·1
Nova Scotia	20,743	325	21,068	0·6
New Brunswick	27,473	512	27,985	0·8
Quebec	523,860	71,000	594,860	16·1
Ontario	363,282	49,300	412,582	11·1
Manitoba	219,723	26,789	246,512	6·7
Saskatchewan	237,975	13,725	251,700	6·8
Alberta	248,800	6,485	255,285	6·9
British Columbia	359,279	6,976	366,255	9·9
Yukon	205,346	1,730	207,076	5·6
Northwest Territories—				
Franklin	541,753	7,500	549,253	14·9
Keewatin	218,460	9,700	228,160	6·2
Mackenzie	493,225	34,265	527,490	14·3
Canada	**3,462,103**	**228,307**	**3,690,410**	**100·0**

[1] Too small to be enumerated.

Section 1.—Physical Geography

The physical features of Canada are considered under this heading in six natural divisions into which the country is divided, each of which is defined and shown in the map on p. 4.

(1) The Appalachian Region, comprising the Maritime Provinces and most of that part of Quebec lying south of the St. Lawrence River. It is a hilly or mountainous region and is made up largely of disturbed beds.

(2) The St. Lawrence Region, a lowland belt bordering the St. Lawrence River and extending westward through southern Ontario to Lake Huron. It is underlain chiefly by flat or gently dipping strata of Palæozoic age.

(3) The Canadian Shield, a vast V-shaped area of ancient rocks surrounding Hudson Bay.

(4) The Interior Plains Region of Manitoba, Saskatchewan, and Alberta which stretches down Mackenzie Valley to the Arctic Ocean. It is underlain by only slightly disturbed Palæozoic and Mesozoic strata.

(5) The Cordilleran Region, including the mountainous country of the Pacific Coast which is developed on highly disturbed rocks.

(6) The Arctic Archipelago, with which is linked the Hudson Bay Lowland. The former includes the islands lying north of the Canadian Shield, while the latter is a broad, flat region, underlain by flat-lying Palæozoic beds.

The physiographic details of each division described above with the geology of the same areas are given at pp. 19-29, under the heading "Geology".

Subsection 1.—Hydrographical Features*

The oceanic areas immediately surrounding the northern half of North America play a vital role in the national life of Canada. The immense navigable waterways which extend into the heart of the continent have been of greatest importance to the discovery, exploration and mercantile development of the Dominion. The energizing influence of the ocean, brought far inland by remarkable coastal physiography, has had marked effect on the lives and character of the inhabitants. The serried Atlantic and Pacific Coasts provide excellent harbours for great fishing fleets and are natural sites for the ports required for transhipment of primary and manufactured products.

To present a comprehensive description of these adjacent seas, the good offices of oceanography, geology, marine biology, meteorology, and many other sciences would have to be invoked, but in the space allotted it would be impossible to deal with so many aspects. The basic factor in any utilitarian study of the oceanic-continental margin is the physical relief of the sea-floor, a subject that has been widely investigated in recent years. As an arbitrary limit must be set, the scope of this subsection is restricted to a consideration of some of the more salient features of the hydrography of the marginal seas surrounding Canada.

The Dominion authority for conducting hydrographic surveys is the Hydrographic Service of Canada, under the administration of the Surveys and Engineering Branch of the Department of Mines and Resources. The work with which it is charged includes the charting of coastal and inland waters, the investigation of tides and tidal streams, and the recording of fluctuations of the waters comprising the Great Lakes-St. Lawrence waterway. This Service produces and circulates the official Canadian hydrographic aids to navigation: charts, volumes of pilots' and sailing directions, tide tables and related nautical publications.

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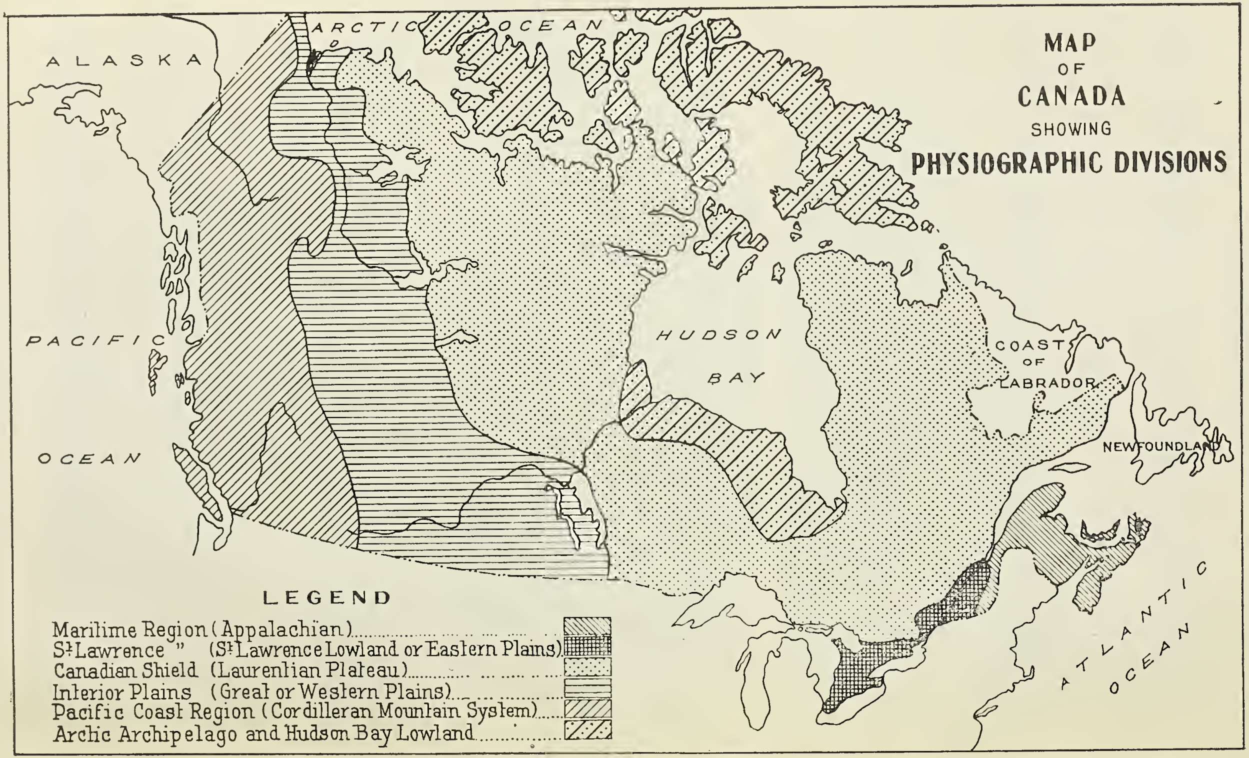
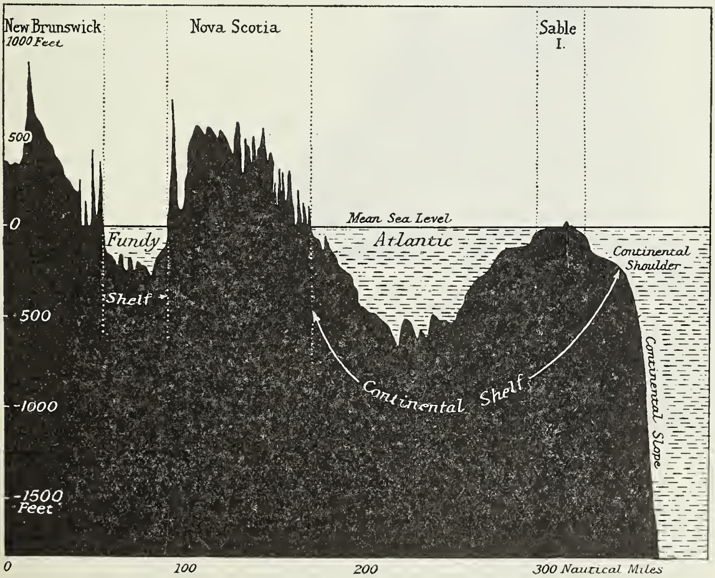
* Prepared by F. C. G. Smith, Hydrographic Engineer, under the direction of F. H. Peters, Surveyor General and Chief, Hydrographic and Map Service, Department of Mines and Resources, Ottawa.


MAP
OF
CANADA
SHOWING
PHYSIOGRAPHIC DIVISIONS
ALASKA
ARCTIC OCEAN
PACIFIC OCEAN
HUDSON BAY
COAST OF LABRADOR
NEWFOUNDLAND
ATLANTIC OCEAN
LEGEND
Maritime Region (Appalachian) ▨
St Lawrence " (St Lawrence Lowland or Eastern Plains) ▦
Canadian Shield (Laurentian Plateau) ▒
Interior Plains (Great or Western Plains) ▤
Pacific Coast Region (Cordilleran Mountain System) ▨
Arctic Archipelago and Hudson Bay Lowland ▨

The hydrographical descriptions of the marginal seas are dealt with under the headings, Atlantic, Arctic and Sub-Arctic, and Pacific, in the following paragraphs.

Atlantic.—Incursions of the sea in the Atlantic Coast are formed in depressions between crests of the Appalachian Mountain Range as it dips into the ocean. Seaward from the shore protrudes the submerged Continental Shelf, the zone that effects the transition from continental to oceanic regions. In contrast to the narrowness and comparative smoothness of submarine plateaux in many parts of the world, the shelf extending off the Atlantic Coast of Canada is distinguished by great width and diversity of relief. From the coast of Nova Scotia it extends 60 to 140 miles; from Newfoundland 120 to 270 miles. In the latter region, the oceanward edge of the submerged plateau is over 600 miles from the Canadian coast, the shelf there being taken to embrace within its confines the Island of Newfoundland. Owing to the great paucity of soundings, the width off Labrador is uncertain but indications are that it varies from about 150 miles at Belle Isle to 50 miles at the entrance to Hudson Strait. Northward it merges into that of the Polar Sea.

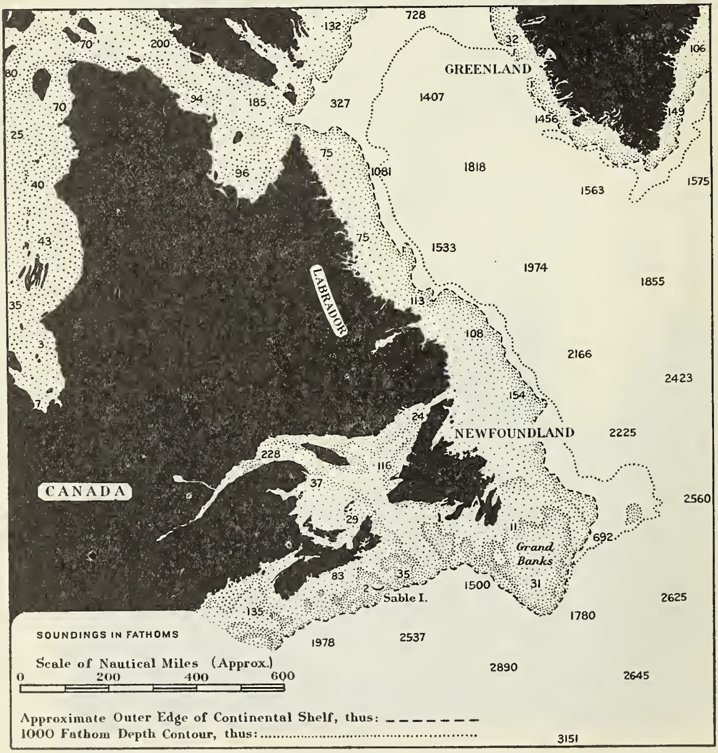
The outer edge of the shelf is known as the Continental Shoulder. There, the sea-floor drops suddenly to the main oceanic basin, several miles deep, the steep declivity being referred to as the Continental Slope. Depths of the sea over the top of the Shoulder vary considerably in different regions and, in consequence, this boundary line between continental and the deep oceanic features cannot be uni-



A cross-section showing a portion of the Continent and the Continental Shelf, vicinity of Saint John, Halifax and Sable Island.

versally defined in terms of a constant bathymetric contour. Off the Canadian and Newfoundland coasts, soundings of from 100 to 200 fathoms are reached before the Shelf suddenly gives way to the steep declivity leading to abysmal depths.

From the relations between widths and depths as given above, it is evident that the over-all gradient of the Atlantic Continental Shelf is slight. It is far from smooth, however, the whole area being studded with such impressive forms as shoals, plateaux, banks, ridges and islands. The deeply indented Atlantic coasts of Nova Scotia and Newfoundland are fringed by scraggy islets and rock shoals. Off Nova Scotia the 40-fathom line lies at an average distance of 12 miles from shore. This submarine contour constitutes the danger line for coastwise shipping but close within it lie some formidable menaces to navigation. Seaward, rise the extensive fishing banks known as Georges, Browns, La Have, Sambro, Middle, Misaine, Banquereau, Sable Island, St. Pierre and the Great Banks of Newfoundland. Sable Island, the


728
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200
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GREENLAND
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25
75
1081
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96
40
1563
1575
75
1533
43
1974
1855
LABRADOR
35
113
108
3
2166
2423
154
7
24
NEWFOUNDLAND
2225
228
116
CANADA
37
2560
29
11
692
Grand Banks
83
35
2
Sable I.
1500
31
2625
135
1780
SOUNDINGS IN FATHOMS
1978
2537
Scale of Nautical Miles (Approx.)
0 200 400 600
2890
2645
Approximate Outer Edge of Continental Shelf, thus: – – – – – – –
1000 Fathom Depth Contour, thus: ....
3151

Plan showing the extent of the Continental Shelf in the Northwest Atlantic.

dry top of a long undersea ridge, lies 90 miles off the nearest point of the continental coast and less than 25 miles from the rim of the deep oceanic basin. This Island is reported to be moving oceanward owing to the action of sea and wind, the sea encroaching on the western end and the land extending eastward.

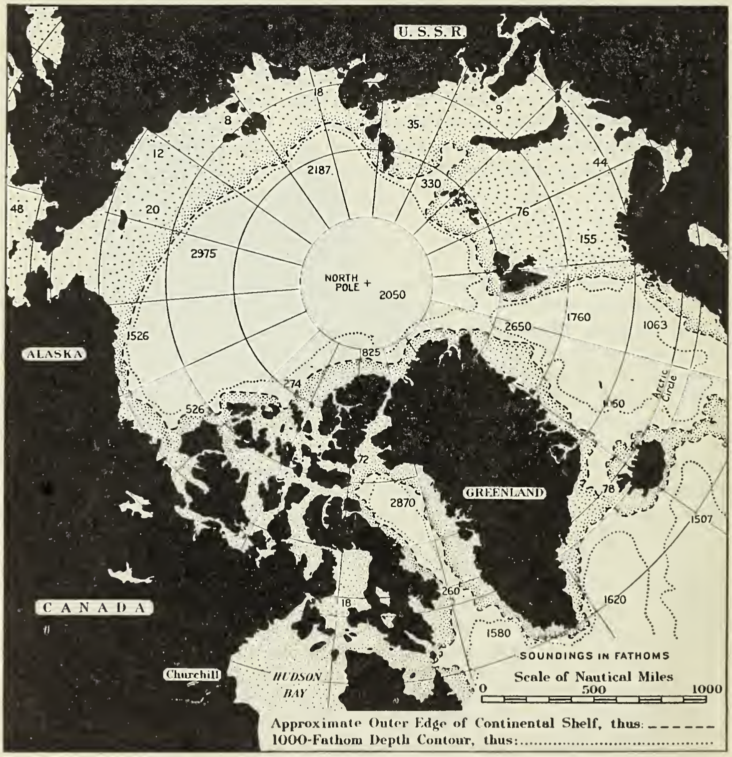
The whole floor of the marginal sea appears to be traversed with channels and gulleys, as yet imperfectly charted but sufficiently so to indicate the general outlines. The outer edge of this submerged flank of the continent is trenched with deep submarine ravines cutting well into the shelf. Outstanding of these is a bold, canyon-like depression which commences in the deep Atlantic Basin south of the Great Banks of Newfoundland and separating St. Pierre Bank on the north and Banquereau on the south. It continues northwestward through Cabot Strait, crosses the open Gulf of St. Lawrence to the north of the Magdalen Islands, thence runs past the Gaspe Coast into the broad estuary of the St. Lawrence. Branches extend for some distance into the northeast arm of the Gulf towards Belle Isle, and also along the northeastern coast of Anticosti Island. Depths in this trough vary from nearly 300 fathoms in Cabot Strait, to 100 fathoms in the St. Lawrence Estuary a short distance below the Saguenay. In referring to the Estuary of the St. Lawrence it is of interest to record that, off the mouth of the Saguenay, the water of the St. Lawrence is salt; at the lower end of Orleans Island it is brackish and the range of tide here reaches its maximum; at Quebec the water is fresh. The true head of the Estuary, therefore, is at the lower end of Orleans Island.

The main features of the topography of the Atlantic marginal sea-floor are attributed to glacial origin, but other agencies are at work constantly modifying the submarine relief. Land erosion is an important factor, eroded materials from the continent being carried by rivers, ice, or winds to the foreshores from whence the solid detritus is spread over wide areas by sea and ice. Stones, gravels, sand and muds are thus transported. Wave action against cliffs and shore banks accounts for enormous masses of continental substances being washed away and deposited over the surrounding sea-floor. The processes of erosion on a great scale are apparent in the Magdalen Islands area in the centre of the Gulf of St. Lawrence. There, the comparatively soft sandstone cliffs are continually being nibbled into fantastic shapes, or worn away by the violent seas to which the coast is exposed. As a result, shallow submarine flats and sand-bars are formed, and bottom contours fluctuate to a considerable degree.

Sea ice, also, is an active agent in the processes of littoral erosion, transport and deposition of eroded materials. A very good illustration can be seen each spring in Cabot Strait where, for many weeks prior to the opening of navigation, an extensive procession of winter ice from the Gulf and River St. Lawrence and Chaleur Bay streams out along the Atlantic coast of Cape Breton on its journey to the sea. The ice which was formed in shallow water and along the shores is laden with erosion products, the mud, sand or clay scoured from the bottom, or swept from the land by gales. The origin of such ice can be recognized: that formed in the St. Lawrence River and Chaleur Bay is dark with the characteristic muds and clays conveyed from those regions, while the ice from the Northumberland Strait area is red with the coloured sand peculiar to the southern part of the Gulf. Ice navigators and coastal dwellers refer to the latter as "red" ice—a welcome sight in the spring as it moves down the coast of Cape Breton for, being the last of the winter ice to flow out of the Gulf, it heralds the opening of navigation. Much of this ice-borne material is carried well out on the Continental Shelf, some of it reaching even beyond Sable Island before the ice deteriorates.

Icebergs, also, are partly responsible for continental shelf-building. Each year a great number of these 'bergs, calved on the shores of Greenland and carrying detritus gouged from the land, are brought south by the Labrador Current. Some become stranded off the Labrador Coast, some on the Great Banks of Newfoundland, others drift until melted by the warmer water of the Gulf Stream. In any case, they succeed in transporting and depositing quantities of stones, mud and other solid material. Wave motion and tidal currents complete the work of distribution. The configuration of the continental sea-floor is continually changing, and vigilance is necessary to keep navigation charts of Canada's eastern seaboard up to date.

Arctic and Sub-Arctic.—The submerged plateau protruding from the northern coast of North America is a major part of the Great Continental Shelf surrounding the North Polar Sea and on which lie all the Arctic Islands of Canada, Greenland,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NORTH POLE
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1760
1063
ALASKA
825
274
Arctic Circle
60
526
72
GREENLAND
78
2870
1507
260
1620
C A N A D A
18
1580
Churchill
HUDSON BAY
SOUNDINGS IN FATHOMS
Scale of Nautical Miles
0
500
1000
Approximate Outer Edge of Continental Shelf, thus:
1000-Fathom Depth Contour, thus:

Plan showing the extent of the Continental Shelf that surrounds the North Polar Basin.

Iceland and most of the islands north of Europe and Asia. In the Canadian segment of the Arctic, the Polar Shelf develops its maximum width and attains its "Farthest North". Hudson Bay, connected to the Arctic by Foxe Channel, and to the Atlantic by Hudson Strait, is a shallow flooding of this same Continental Plateau.

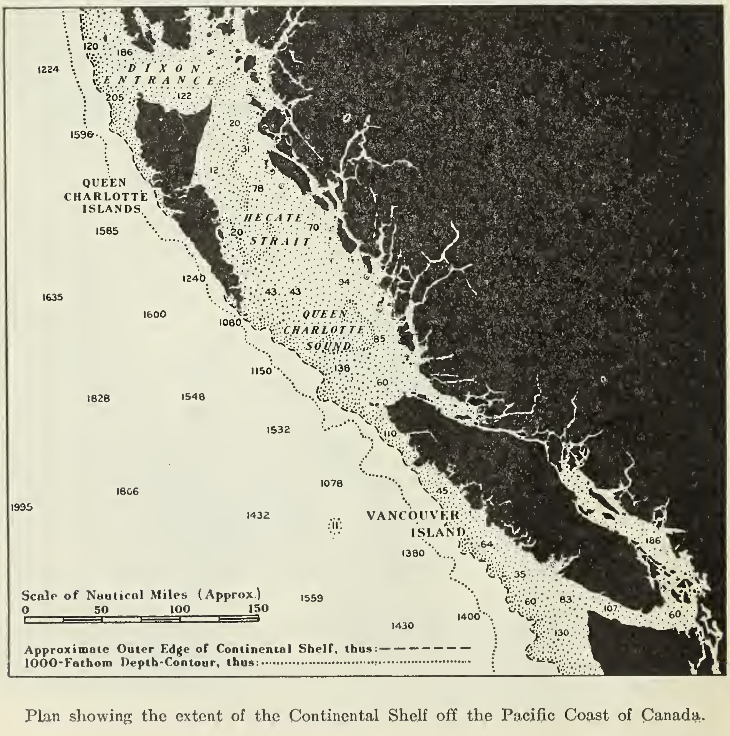
On the 80th meridian of west longitude the Polar Shelf reaches the greatest width of any submerged continental plateau. A cross-section of the Shelf on this meridian intersects the southern extremity of James Bay, Hudson Bay and the north coast of Ellesmere Island—a total distance of over 2,000 miles, the Continental Shoulder being only 300 miles from the Pole. Owing to the very limited amount of charting that has been done in the Arctic, the bottom topography on this profile would be somewhat hypothetical. Sufficient is known, however, to indicate an abrupt break of the continental margin at its northern oceanward edge. There, the sea-floor drops from a depth of about 100 fathoms to depths of over two miles in the North Polar Basin. This steep continental terrace borders the whole western side of the Canadian Archipelago and it constitutes one of the most striking and significant features of the Polar Regions. From this great declivity a number of deep, well-developed troughs, apparently cut by glaciers, enter between the western groups of islands. Off Baffin Island, on the submerged shelf which joins the eastern side of the Archipelago with Greenland, is an isolated depression reported to be considerably over a mile in depth. A ridge across Davis Strait, on which the depth is about 200 fathoms, separates this basin from the open Atlantic.

The incursions of the sea, Hudson Bay and Hudson Strait, bite deeply into the continent. Hudson Bay is an inland sea, about 250,000 square miles in area. Into it is poured the water drained from 1,500,000 square miles of the continent—nearly three times that of the Atlantic drainage system. In this respect, the Bay resembles an enormous estuarial basin, the great flood of fresh water into it accounting for the low salinity of the upper layers and partly for its great temperature ranges. Still more pronounced in estuarial character is James Bay to the south. This projection, with general depths of 20 to 30 fathoms in its central part and with extensive, drying mud-flats off its shores, is studded with islands. Numerous rivers discharge into James Bay and, as a result, the water is brackish.

In Hudson Bay, soundings are too few to give a complete picture of submarine relief, but the average depth is about 70 fathoms. It has been ascertained that a deepwater channel is carried from Hudson Strait into an irregular-shaped depression in the centre of the Bay where a greatest charted depth of 141 fathoms has been found. Of the hydrography of the east side of the Bay, little is known beyond the fact that it is bordered by groups of islands and rocks lying as far off as 100 miles. Ship navigation inside these islands would be subject to great risk owing to the scarcity of chart soundings. Strikingly different is the western side of Hudson Bay which is low and flat, almost devoid of islands except well to the north where a few small islets are found. Between James Bay and Cape Churchill the water deepens gradually, the 50-fathom contour lying about 50 to 90 miles off shore. Northward of Churchill this contour approaches within 15 to 30 miles of the coast.

Hudson Strait, 430 miles in length, is a deep arm of the sea separating Baffin Island from the continental coast and connecting Hudson Bay with the Atlantic Ocean. Widths of the Strait vary from 37 miles at the entrance to 120 miles near its western extremity. The coasts are generally high and bold, broken by many bays and fiords which afford excellent harbourage. Its greatest charted depth of 481 fathoms is found close inside the Atlantic entrance. There the sea-floor is extremely irregular and deep, swift tidal currents striking the nearly vertical rock walls of submarine valleys are deflected sharply upward to cause the disturbance referred to by the explorer Davis as "the furious overfall". Throughout the whole Strait, great irregularities of the bottom are indicated but, except in inshore waters, few hazards to navigation have been located.

Pacific.—The marine zones of Canada—Atlantic, Pacific and Arctic—exhibit individual characteristics, the marginal sea of the Pacific differing strikingly from the others. In contrast to the more symmetrical and subdued hydrography of the eastern seaboard, the corresponding coastal belt of British Columbia is characterized by bold, abrupt relief—repetition of the mountainous landscape. Dominant features of the Pacific Marginal Sea are the great detached island land-masses, their western slopes lying close to the edge of the deep oceanic basin. Whereas the Atlantic Coast is broken by bays and inlets of moderate length and depth, the western seaboard of Canada is characterized by a well-developed fiordal system which penetrates the mountainous coast for distances of 50 to 75 miles.


120
186
1224
DIXON ENTRANCE
205
122
20
1596
31
12
QUEEN CHARLOTTE ISLANDS
78
HECATE STRAIT
70
20
1585
1240
94
43
43
1635
1600
1080
QUEEN CHARLOTTE SOUND
85
1150
138
60
1828
1548
1532
110
1806
1078
45
1995
1432
11
VANCOUVER ISLAND
64
186
1380
35
Scale of Nautical Miles (Approx.)
0 50 100 150
1559
60
83
107
60
1400
1430
130
Approximate Outer Edge of Continental Shelf, thus: — — — — — — —
1000-Fathom Depth-Contour, thus: ....

Plan showing the extent of the Continental Shelf off the Pacific Coast of Canada.

The inlets of British Columbia are occasionally straight, but most are winding and branch off at intervals to form webs of off-shoots and ramifications. They are usually a mile or two in width, have steep, almost canyon-like sides, and are attributed to glacial origin. Many have been only sketchily surveyed, but in some which have been sounded, depths of well over 100 fathoms are indicated. True to their fiordal character, depths inside the inlets are considerably greater than those in the entrances and the immediate approaches are often strewn with islets and sunken rocks.

Along the whole stretch of coast continuous navigation is afforded in an "Inside Passage", sheltered from the sea by a protective barrier of islands. As is to be expected in a region so irregular in hydrographic relief, shoals and pinnacle rocks are numerous, necessitating great caution in navigation. Fortunately, kelp grows on nearly every danger having a rocky bottom and can be seen on the surface during the summer months especially in those channels where the water is in constant motion. During the winter and spring, however, this useful plant is not always visible and in harbours where there is little water movement it is often absent.

"Ripple Rock", the worst danger on the Coast, lies in the main ship passage between Vancouver Island and the mainland. This formidable menace rises suddenly from depths of 200 and 300 feet in the fairways on either side. During low water of spring tides the two heads on the rock are only 9 and 21 feet below the surface. The tide race, here, attains velocities up to 14 knots, creates great turbulence and whirlpools, and renders the passage unnavigable to all but the highest-powered vessels, except during the brief period of slack water.

From the islet-strewn coast of British Columbia the Continental Shelf extends from 50 to 100 sea-miles to its oceanward limit where depths of about 200 fathoms are found. There the sea-floor drops rapidly to the Pacific Deeps, parts of the western slopes of Vancouver and Queen Charlotte Islands lying only 4 miles and 1 mile, respectively, from the edge of this steep declivity. These high islands are partially submerged mountain ridges, their slopes broken by numerous sea-inundated valleys. An outstanding feature of the marginal sea-belt off the British Columbia coast is the submerged ridge which joins the Queen Charlottes to the chain of smaller islands fringing the mainland. This body of water, Hecate Strait, connects the two much deeper arms of the sea—Queen Charlotte Sound on the south and Dixon Entrance on the north. Widths of Hecate Strait vary from 80 to 30 miles, and depths on it decrease from over 100 fathoms in the southern part to from 4 to 20 fathoms in the northern portion. Characteristic of the sea-floor of the whole Pacific Coast, the submerged shelf here is furrowed and deeply ravined.

Extensive areas lying off British Columbia have, as yet, been only partially charted and, in consequence, much of the intricate submarine relief has not been developed. Owing to the great depths encountered, sounding by lead and line was a slow process, but with the advent of automatic echo-sounding, progress of hydrographic work has received great impetus. As charting progresses along the coast, unexpected submarine features come to light, new rocks are located and safe passages which clear them are found, prospective fishing banks are delineated and new navigation charts are produced. For detailed hydrographic information on specific localities, the reader is referred to these and related nautical publications.

Subsection 2.—Lakes and Rivers

The fresh-water area of Canada is unusually large constituting over 6 p.c. of the total area of the country. The outstanding feature is the Great Lakes, details concerning which are given in Table 2.

Particularly notable are the depth of Lake Superior and the shallowness of Lake St. Clair and Lake Erie.

2.—Areas, Elevations, and Depths of the Great Lakes

Lake	Elevation Above Sea-level	Length	Breadth	Maximum Depth	Total Area	Area on Canadian Side of Boundary
	ft.	miles	miles	ft.	sq. miles	sq. miles
Superior	602·23	383	160	1,302	31,820	11,200
Michigan	580·77	321	118	923	22,400	Nil
Huron	580·77	247	101	750	23,010	13,675
St. Clair	575·30	26	24	23	460	270
Erie	572·40	241	57	210	9,940	5,094
Ontario	245·88	193	53	774	7,540	3,727

Lake Superior, with an area of 31,820 square miles, is the largest body of fresh water in the world. The International Boundary between Canada and the United States passes through the waters of Lakes Superior, Huron, St. Clair, Erie and Ontario. The great obstacle to navigation on this waterway—the rise of 326 feet between Lakes Ontario and Erie—is surmounted by the Welland Ship Canal, the river itself dropping over the escarpment at Niagara creates the best known waterfall in the world. The Great Lakes, with the St. Lawrence River, form the most important system of waterways on the continent and one of the world's most notable fresh-water transportation routes. In addition to the Great Lakes there are many other remarkably large lakes; the eleven following, with their areas in square miles in parentheses, are all over 1,000 square miles in area: Great Bear (12,000), Great Slave (11,170), Winnipeg (9,398), Athabaska (3,058), Reindeer (2,444), Winnipegosis (2,086), Nipigon (1,870), Manitoba (1,817), Dubawnt (1,600), Lake of the Woods (1,346) and Southern Indian (1,060). Apart from these lakes, named as notable for their size, there are innumerable other lakes scattered all over that major portion of the area of Canada lying within the Canadian Shield. In an area of 6,094 square miles, accurately mapped, just south and east of Lake Winnipeg, there are 3,000 lakes; in an area of 5,294 square miles, accurately mapped, southwest of Reindeer Lake in Saskatchewan, there are 7,500 lakes. Table 3 gives a list of the principal lakes of Canada, by provinces, with their elevations in feet and their areas in square miles.

3.—Areas and Elevations of Principal Canadian Lakes, by Provinces

NOTE.—In the case of those reservoirs and lakes for which two elevations are given, HW means high water, LW low water, and N normal level.

Province and Lake	Elevation	Area
	ft.	sq.miles
Nova Scotia—		
Bras d'Or	tidal	360
New Brunswick—		
Grand	tidal	65
Quebec—		
Abitibi (total, 350) part	868	55
Albanel	1,289	145
Baskatong (reservoir)	HW 732 LW 677	109
Bienville	[1]	392
Burnt (Lac Brûlé)	1,203	56
Cabonga (reservoir) (Kakabonga).	HW 1,185 LW 1,169	66
Champlain (total, 360) part	95	18
Chibougamau	1,253	138
Clearwater	790	410
d'Iberville	[1]	260
Evans	612	180
Goëland	660	125
Indian House	[1]	125
Kaniapiskau	1,850	210
Kempt	1,372	63
Kipawa	884	95
Lower Seal	860	130
Manikuagan	[1]	110
Manuan	1,340	100
Maricourt	[1]	110
Mattagami	615	88
Minto	[1]	485
Mistassini	1,243	840
Nichikun	1,760	150
Olga	635	50
Payne	[1]	230
Pipmakan	[1]	90
Pletipi	[1]	138
Quinze, Lac des	HW 867 N 857	55
St. Francis, River St. Lawrence (total, 85) part.	LW 151 N 153	63
St. John	321	375
St. Louis	LW 65 N 67	57
St. Peter	LW 11	130
Simard	856	59
Timiskaming (total, 110) part	HW 593 N 584	55
Two Mountains	72	63
Waswanipi	680	75
Ontario—		
Abitibi (total, 350) part	868	295
Dog	1,378	61
Eagle	1,192	137
Erie (total, 9,940) part	572	5,094
Huron, including Georgian Bay (total, 23,010) part	581	13,675
Kesagami	[1]	90
La Croix (total, 55) part	1,181	25
Long	1,025	75
Ontario—concluded		
Manitou, Kenora	1,215	60
Mille Lacs, Lac des	1,491	102
Minnitaki	1,177	72
Nipigon	852	1,870
Nipissing	643	330
Ontario (total, 7,540) part	246	3,727
Rainy (total, 366) part	1,107	292
Red	1,157	69
St. Clair (total, 460) part	575	270
St. Francis, River St. Lawrence (total, 85) part.	LW 151 N 153	20
St. Joseph	1,219	187
Sandy	1,190	270
Seul (reservoir)	HW 1,172 LW 1,156	416
Shoal (total, 114) part	1,065	108
Simcoe	718	280
Stout, Berens River	1,039	50
Sturgeon, English River	1,342	110
Superior (total, 31,820) part	602	11,200
Timagami	962	90
Timiskaming (total, 110) part	HW 593 N 584	55
Trout, English River	1,294	156
Trout, Severn River	[1]	215
Woods, Lake of the (total, 1,346) part.	HW 1,062 LW 1,055	1,127
Manitoba—		
Athapapuskow	951	104
Atikameg	855	112
Beaverhill	651	70
Cedar	829	537
Cormorant	840	134
Cross, Nelson River	679	274
Dauphin	853	200
Dog	815	64
Etawnei	[1]	28
Gods	585	319
Goose	935	53
Granville	850	181
Island	744	550
Kamuchawie (total, 56) part	1,153	30
Kipahigan (total, 59) part	963	29
Kiskittogisu	709	99
Kiskitto	696	65
Kississing	920	141
Manitoba	813	1,817
Molson	[1]	154
Moose	838	525
Namew (total, 79) part	873	8
Northern Indian	725	150
Nueltin (total, 336) part	[1]	76
Oxford	612	155
Paint	615	54
Pelican, west of Lake Winnipegosis	837	80
Playgreen	711	257
Reed	911	78
Red Deer, west of Lake Winnipegosis	862	86
Reindeer (total, 2,444) part	1,150	386
St. Martin	798	125
Setting	737	49
Shoal (total, 114) part	1,065	6

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[1] Elevation not available.

3.—Areas and Elevations of Principal Canadian Lakes, by Provinces—concluded

Province and Lake	Elevation	Area
	ft.	sq.miles
Manitoba—concluded		
Sipiwesk	598	201
Sisipuk (total, 99) part	915	73
Southern Indian	835	1,060
Stevenson	[1]	75
Swan	849	100
Talbot	845	72
Todatara (total, 241) part	[1]	156
Walker	1,121	62
Waterhen	829	90
Wekusko	840	64
Winnipeg	712	9,398
Winnipegosis	831	2,086
Woods, Lake of the (total, 1,346) part.	HW 1,062 LW 1,055	59
Saskatchewan—		
Amisk	964	168
Athabaska (total, 3,058) part	699	2,165
Besnard	1,294	72
Black Birch	1,517	54
Candle	1,620	56
Canoe	1,415	78
Churchill	1,382	213
Cold (total, 136) part	1,756	36
Cree	1,541	350
Cumberland	871	93
Deschambault	1,072	209
Doré	1,506	248
Ile-à-la-Crosse	1,379	165
Kamuchawie (total, 56) part	1,153	26
Kipahigan (total, 59) part	963	30
La Plonge	1,476	90
La Ronge	1,250	450
Last Mountain	1,608	89
Loche, Lac la	1,459	70
Montreal	1,608	162
Namew (total, 79) part	873	71
Nemeiben	1,259	63
Peter Pond	1,382	302
Primrose (total, 181) part	1,964	173
Quill	1,704	236
Reindeer (total, 2,444) part	1,150	2,058
Riou	[1]	75
Sisipuk (total, 99) part	915	26
Smoothstone	1,572	110
Snake	1,262	159
Tazin	1,130	156
Wollaston	1,300	768
Alberta—		
Athabaska (total, 3,058) part	699	893
Beaverhill	2,202	80
Biche, Lac la	1,784	94
Buffalo	2,566	56
Calling	1,947	55
Claire	699	545
Cold (total, 136) part	1,756	100
Lesser Slave	1,893	461
Mamawi	699	64
Peerless	2,267	75
Primrose (total, 181) part	1,964	8
Sullivan (variable)	2,652	62
Utikuma	2,105	85
British Columbia—		
Adams	1,334	52
Atlin (total, 308) part	2,200	307
Babine	2,330	194
Chilko	3,842	75
Eutsuk	2,817	96
François	2,345	91
Harrison	34	87
Kootenay	1,741	168
Kotcho (unsurveyed and estimated)	[1]	90
Lower Arrow	1,379	59
Okanagan	1,123	136
Ootsa	2,666	50
Quesnel	2,375	100
Shuswap	1,137	120
Stuart	2,225	139
Tagish (total, 138) part	2,148	93
Takla	2,270	102
Teslin (total, 161) part	2,250	65
Upper Arrow	1,395	88
Northwest Territories—		
Aberdeen	130	475
Artillery	1,190	207
Aylmer	1,230	340
Baker	30	975
Clinton-Colden	1,226	253
Dubawnt	500	1,600
Faber	753	163
Franklin	[1]	175
Garry	[1]	980
Gras, Lac de	1,300	345
Great Bear	391	12,000
Great Slave	495	11,170
Hardisty	699	107
Hottah	[1]	377
Kaminuriak	320	360
Macdougal	[1]	265
Maguse	[1]	540
Martre, Lac la	[1]	685
Mackay	1,415	250
Marian	495	90
Nueltin (total, 336) part	[1]	260
Nutarawit	[1]	350
Pelly	[1]	331
Point	[1]	295
Rae	748	74
Schultz	115	110
Thoalintoa	[1]	160
Todatara (total, 241) part	[1]	85
Yathkyed	300	860
Yukon—		
Aishihik	[1]	107
Atlin (total, 308) part	2,200	1
Kluane	2,500	184
Kusawa	2,565	56
Laberge	2,100	87
Tagish (total, 138) part	2,148	45
Teslin (total, 161) part	2,250	96

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[1] Elevation not available.

The river systems of Canada, excluding the Arctic islands, are best studied by segregating the main drainage basins as shown in Table 4.

4.—Drainage Basins in Canada

Note.—Classified by the Dominion Water and Power Bureau, Department of Mines and Resources Ottawa.

Drainage Basin	Area Drained[1]	Drainage Basin	Area Drained[1]
	sq. miles		sq. miles
Atlantic Basin		**Arctic Basin**	
Atlantic or Maritime Provinces	61,151	Great Slave Lake	370,681
Great Lakes and St. Lawrence River	359,312	Arctic	559,676
Total	**420,463**	**Total**	**930,357**
		Pacific Basin	
Hudson Bay Basin		Pacific	273,540
Northern Quebec	343,259	Yukon River	127,190
Southwest Hudson Bay	283,997	**Total**	**400,730**
Nelson River	368,182		
Western Hudson Bay	383,722	**Gulf of Mexico Basin**	**10,121**
Total	**1,379,160**	**Area, Canada Less Arctic Archipelago**	**3,157,662**

[1] Areas are approximate and are exclusive, for all rivers, of those portions of their basins that lie in United States territory.

It is noteworthy that the greater part of Canada drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running *through* the most arable and the most settled part of the West, but otherwise the rivers of Western Canada east of the Rockies run *away* from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie, which drains Great Slave Lake is, with its headwaters, the longest river in Canada (2,514 miles) and its valley constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. From Fort Smith, on the Slave River, large river boats run without any obstruction down to Aklavik in the delta of the Mackenzie, a distance of 1,292 miles. In Eastern Canada it is the Great Lakes and St. Lawrence drainage basin that dominates all others and has undergone the greatest development. The St. Lawrence River and the Great Lakes provide a water route from the Atlantic as far as Fort William and Port Arthur, twin cities situated on Lake Superior and only 419 miles from Winnipeg, the half-way mark in distance across the Dominion. The main tributaries of the St. Lawrence all flowing south (most of which have lakes available for reservoiring), together with the main river itself, have developed and undeveloped water powers the economic value of which it would be difficult to over-estimate. Apart from the plains region of the West, the rivers of Canada have a vast power potentiality well distributed over the country. Table 5 gives the lengths of the principal rivers with their tributaries classified according to the four major drainage basins.

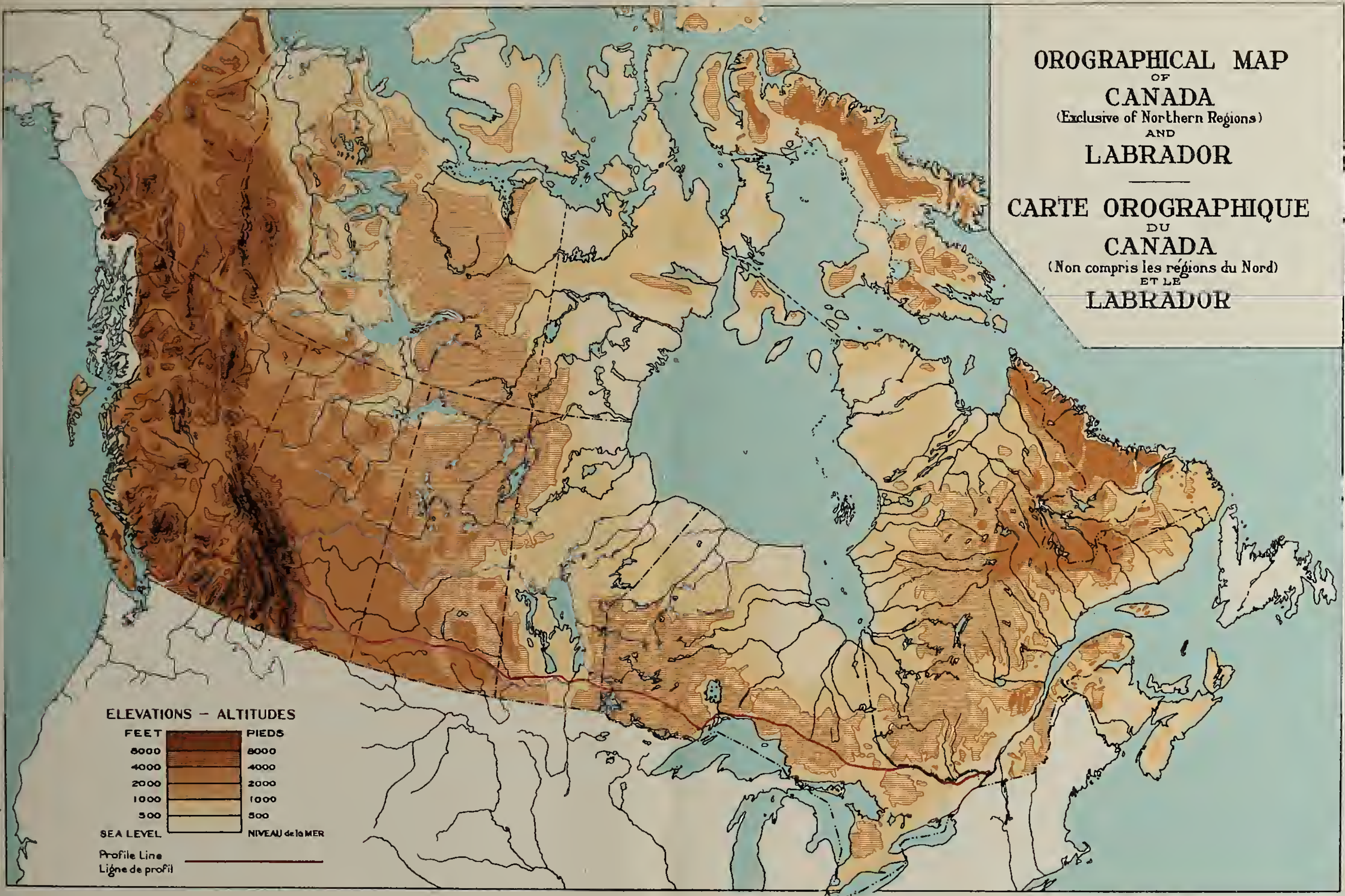
5.—Lengths of Principal Rivers and Tributaries in Canada

Note.—In this table the tributaries and sub-tributaries are indicated by indentation of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

River	Length
	miles
Flowing into the Atlantic Ocean	
Natashkwan (to Labrador boundary)	160
Romaine	270
Moisie	210
Marguerite	130
St. John	399
Miramichi	135
St. Lawrence (to head of St. Louis, Minn.)	1,900
Manikuagan	310
Outardes	270
Bersimis	240
Saguenay (to head of Peribonka)	475
Peribonka	280
Mistassini	185
Ashuapmuchuan	165
Chaudière	120
St. Maurice	325
Mattawin	100
St. Francis	165
Richelieu	210
Ottawa	696
North	70
Rouge	115
North Nation	60
du Lièvre	205
Gatineau	240
Coulonge	135
Dumoine	80
South Nation	90
Mississippi	105
Madawaska	130
Petawawa	95
Moira	60
Trent	150
Grand	165
Thames	163
French (to head of Sturgeon)	180
Sturgeon	110
Spanish	153
Mississagi	140
Thessalon	40
Nipigon (to head of Ombabika)	130
Flowing into Hudson Bay	
Hayes	300
Nelson (to Lake Winnipeg)	400
Nelson (to head of Bow)	1,600
Red (to head of Lake Traverse)	355
Red (to head of Sheyenne)	545
Assiniboine	590
Souris	450
Qu'Appelle	270
Winnipeg (to head of Firesteel)	475
English	330
Saskatchewan (to head of Bow)	1,205
North Saskatchewan	760
South Saskatchewan (to head of Bow)	865
Bow	315
Belly	180
Red Deer	385
Churchill	1,000
Beaver	305
Kazan	455
Dubawnt	580
Severn (to head of Black Birch)	612
Winisk	295
Attawapiskat	465
Albany (to head of Cat)	610
Flowing into Hudson Bay—concluded	
Moose (to head of Mattagami)	340
Mattagami	275
Abitibi	340
Missinaibi	265
Harricanaw	250
Nottaway (to head of Waswanipi)	400
Waswanipi	190
Rupert	380
Eastmain	510
Fort George	520
Great Whale	365
Leaf	295
Koksoak (to head of Kaniapiskau)	660
Kaniapiskau	575
George	365
Flowing into the Pacific Ocean	
Columbia (total)	1,150
Columbia (in Canada)	459
Kootenay	407
Kootenay (in Canada)	276
Fraser	850
Thompson (to head of North Thompson)	304
North Thompson	210
South Thompson (to head of Shuswap)	206
Chilcotin	146
West Road (Blackwater)	141
Nechako	287
Stuart (to head of Driftwood)	258
Porcupine	525
Skeena	360
Bulkley (to head of Maxam Creek)	160
Nass	236
Stikine	335
Alsek	260
Yukon (mouth to head of Nisutlin)	1,979
Yukon (int. boundary to head of Nisutlin)	714
Stewart	320
White	185
Pelly	330
Macmillan	200
Lewes	338
Flowing into the Arctic Ocean	
Anderson	465
Horton	275
Mackenzie (to head of Finlay)	2,514
Peel (to head of Ogilvie)	425
Arctic Red	230
Twitya	200
Liard	755
Fort Nelson	260
South Nahanni	250
Petitot	260
Athabaska	765
Pembina	210
Slave	258
Hay	530
Peace (to head of Finlay)	1,054
Finlay	250
Parsnip	145
Smoky	245
Little Smoky	185
Coppermine	525
Back	605

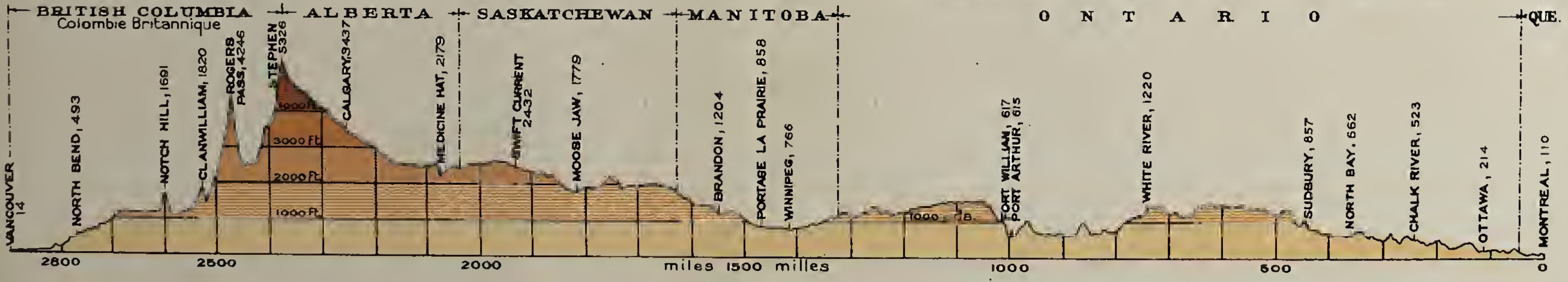
OROGRAPHICAL MAP OF CANADA
(Exclusive of Northern Regions)
AND
LABRADOR

CARTE OROGRAPHIQUE DU CANADA
(Non compris les régions du Nord)
ET LE
LABRADOR


ELEVATIONS – ALTITUDES
FEET
PIEDS
8000
4000
2000
1000
500
SEA LEVEL
NIVEAU de la MER
Profile Line
Ligne de profil

PROFILE
Following C.P.R. Main Line, Montreal-Vancouver

PROFIL
Suivant la ligne principale du C.P.R., Montreal-Vancouver



Subsection 3.—Mountains

The predominant orographical feature in Canada is the great Cordilleran Mountain System. The principal named peaks exceeding 11,000 feet in elevation are given in Table 6.

6.—Mountain Peaks 11,000 Feet or Over in Elevation, by Provinces and Mountain Ranges

NOTE.—The highest point on the mainland of Eastern Canada (peaks of the Torngats in Labrador rise to about 5,500 feet) is Mount Jacques Cartier, a peak of Tabletop Mountain in N. lat. 48° 59′, W. long. 65° 56′, Gaspe district, Quebec, the summit of which is 4,160 feet above sea-level.

Province, Mountain Range, and Peak	Elevation
	ft.
Alberta	
Rocky Mountains—	
Columbia[1]	12,294
Brazeau	12,250
The Twins	12,085 11,675
Forbes	11,902
Alberta	11,874
Assiniboine[1]	11,870
Temple	11,636
Kitchener	11,500
Lyell[1]	11,495
Hungabee[1]	11,457
Athabaska	11,452
King Edward[1]	11,400
Victoria[1]	11,365
Snow Dome[1]	11,340
Stutfield	11,320
Joffre[1]	11,316
Murchison	11,300
Deltaform[1]	11,235
Lefroy[1]	11,230
Alexandra[1]	11,214
Sir Douglas[1]	11,174
Woolley	11,170
Lunette[1]	11,150
Hector	11,135
Diadem	11,060
Clearwater	11,044
Edith Cavell	11,033
Fryatt	11,026
Coleman	11,000
Wilson	11,000
British Columbia	
Coast Mountains—	
Waddington	13,260
Tiedemann	12,000
Selkirk Mountains—	
Sir Sandford	11,590
Farnham	11,342
Hasler	11,113
Delphine	11,076
Huber	11,051
British Columbia—concluded	
Selkirk Mountains—concluded	
Wheeler	11,023
Selwyn	11,013
Rocky Mountains—	
Robson	12,972
Clemenceau	12,001
Goodsir	11,676
Bryce	11,507
Chown	11,500
Resplendent	11,240
King George	11,226
Jumbo	11,217
The Helmet	11,160
Whitehorn	11,101
Bush	11,000
Sir Alexander	11,000
St. Elias Mountains—	
Fairweather[2]	15,287
Root[2]	12,860
Yukon[3]	
St. Elias Mountains—	
Logan	19,850
St. Elias	18,008
Lucania	17,150
King	17,130
Steele	16,439
Wood	15,885
Vancouver	15,696
Hubbard	14,950
Alverstone	14,500
Walsh	14,498
McArthur	14,400
Augusta	14,070
Strickland	13,818
Newton	13,811
Cook	13,760
Craig	13,250
Badham	12,625
Malaspina	12,150
Jeannette	11,700
Baird	11,375

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[1] This peak is on the interprovincial border between Alberta and British Columbia. [2] This peak is on the international boundary between British Columbia and Alaska. [3] The enumerated peaks in Yukon are on or near the Yukon-Alaska Boundary.

There are no elevations in the rest of Canada that come anywhere near rivalling those of the Cordilleran Region. Only small areas in northeastern Quebec rise above 2,000 feet in elevation; there are no great eminences, but the surface is generally accidented by many hills and hollows with countless numbers of lakes and streams.

South and east of the River St. Lawrence, the St. Lawrence Lowlands are bordered by extensions and outliers of the Appalachian Mountains. The Appalachian System, in fact, extends through the Maritime Provinces and the Gaspe Peninsula of Quebec. The whole area may be regarded as a peninsula jutting out with bold and broken coast line to separate the Gulf of St. Lawrence from the Atlantic. Peaks in this area, notably the Notre Dame and the Shickshock Mountains, reach elevations up to 4,000 ft.

Subsection 4.—Islands

The islands of Canada are among its most remarkable geographic features. They include the very large group lying in the Arctic Ocean, the fringe of both large and small islands off the Pacific Coast, those of the Maritime Provinces and Quebec in the Atlantic Ocean and the Gulf of St. Lawrence, together with the islands of the Great Lakes and other inland waters. The Pacific Coast islands, with the exception of Vancouver Island and the Queen Charlotte group, are small and dot the coast of British Columbia from Dixon Entrance to the southern boundary of the Province. Vancouver Island is 285 miles long and from 40 to 80 miles broad, covering an area of about 12,408 square miles; the mountain range which forms its backbone rises again to form the Queen Charlotte Islands farther north. These islands figure largely in the mining, lumbering and fishing industries of the West and, together with the bold and deeply indented coast line, provide a region for scenic cruises rivalling those of Norway.

On the eastern coast of the Dominion are the island province of Prince Edward Island, the Islands of Cape Breton (an integral part of Nova Scotia), Anticosti, and the Magdalen group (included in the Province of Quebec), and the Islands of Grand Manan and Campobello (part of the Province of New Brunswick) in the Bay of Fundy. Prince Edward Island is 2,184 square miles in area, Cape Breton 3,970 and Anticosti about the same. Fishing activities in these eastern islands are important, while agriculture on Prince Edward Island and mining on Cape Breton are the chief occupations of the inhabitants.

Manitoulin Island and the Georgian Bay islands in Lake Huron and the Thousand Islands group in the St. Lawrence River, at its outlet from Lake Ontario, are the more important islands of the inland waters.

Section 2.—Political Geography

Politically, Canada is divided into nine Provinces and two Territories. From east to west these are: the Maritime Provinces of Prince Edward Island, Nova Scotia and New Brunswick; Quebec; Ontario; the Prairie Provinces of Manitoba, Saskatchewan and Alberta; and the most westerly province, British Columbia. North of the area included in the provinces the country is divided into the Yukon Territory and the Northwest Territories. The political characteristics and the resources of each of these areas are reviewed at pp. 23-27 of the 1946 Year Book. Each of the provinces is sovereign in its own sphere, as set out in the British North America Act (see pp. 40-60 of the 1942 Year Book) and, as new provinces have been organized from the Dominion lands of the Northwest, they have been granted political status equivalent to that of the original provinces. Yukon and the Northwest Territories with their boundaries of to-day are administered by the Dominion Government.

PART II.—GEOLOGY*

The following geological time scale will assist the reader by showing the relationship of the various formations mentioned in this article.

GEOLOGICAL TIME SCALE

Era	Sub-Era	Period	Orogeny
Cenozoic	Quaternary	Recent	
		Pleistocene	
	Tertiary	Pliocene	
		Miocene	
		Oligocene	
		Eocene	Laramide
Mesozoic		Cretaceous	Coast intrusions
		Jurassic	
		Triassic	
Palæozoic	Carboniferous	Permian	Appalachian
		Pennsylvanian	
		Mississippian	
		Devonian	Shickshockian
		Silurian	
		Ordovician	
		Cambrian	
Proterozoic (late Precambrian)		Keweenawan	Killarnean
		Huronian	
Archæan (early Precambrian)		Timiskamian	Algoman
		Keewatin	Laurentian

In the section on Physical Geography, pp. 2-3, the natural physiographic divisions have been briefly described and are illustrated by the map at p. 4. These physiographic divisions depend fundamentally on underlying differences of geological structure and hence are geomorphic ones as well as physiographic. For this reason the detailed descriptions of these divisions are taken up here from the standpoint of both physiography and geology.

The Appalachian and Acadian Regions.—The Appalachian and Acadian Regions include that part of Canada lying south of the St. Lawrence River and east of a line running from Quebec city south to the foot of Lake Champlain. The Appalachian Region, whose eastern boundary in Canada is the Restigouche River and Chaleur Bay, is a continuation of the Appalachian Mountain system of the eastern United States. The Acadian Region lies to the southeast and comprises the Provinces of New Brunswick, Nova Scotia, and Prince Edward Island.

The region is for the most part mountainous or hilly. In southeastern Quebec the Notre Dame Mountains, consisting of three roughly parallel ridges trending northeast, reach elevations up to 3,100 feet and in Gaspe Peninsula, the Shickshocks, actually a continuation of the same range, have heights up to 4,160 feet. Many of the mountain summits are flat-topped, showing that the region is really a dissected plateau. The Acadian Region is also largely one of plateaux, ridges, and valleys. In central New Brunswick is a rugged area with summits rising over 2,000 feet.

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To the east of this is a lowland area of some 10,000 square miles comprising the eastern portion of the Province and all of Prince Edward Island. This area nowhere rises over 600 feet above the sea. Nova Scotia is largely an upland region which, in the northern part of Cape Breton Island, reaches elevations of 1,500 feet.

The rocks of the Appalachian and Acadian Regions include sediments, volcanics, and intrusives, chiefly of Palæozoic age. In a few places rocks of Precambrian age are known and along the Bay of Fundy coast are a few areas underlain by Mesozoic rocks. The lowland area of eastern New Brunswick is underlain by little-disturbed Carboniferous beds. Elsewhere, however, throughout the region, the rocks are nearly everywhere thrown into folds with axes trending in a northeast direction and are, in addition, broken by faults giving rise to a complex structure typical of the Appalachian Region in general. The chief period of deformation in this part of Canada, however, was during the Devonian, whereas to the south, in the United States, the greatest disturbances took place later during the Permian at the close of the Palæozoic.

At Saint John city, in southern New Brunswick, is exposed a series of early Precambrian rocks made up of limestone, dolomite, quartzite, and gneiss. It is overlain by a thick succession of late Precambrian volcanic rocks upon which rest Cambrian strata. Precambrian rocks also occur in Cape Breton Island. In Gaspe Peninsula along the north side of Chaleur Bay the Macquereau series, composed largely of quartzite, rests unconformably below Ordovician strata and may be Precambrian. Precambrian rocks have been described as occurring in central New Brunswick and in southwestern Quebec. Some of the occurrences are probably, however, of Palæozoic age.

In the mainland of Nova Scotia a thick series of altered sediments, known as the Meguma or Gold-bearing series, covers wide areas and is believed to be of late Precambrian age. The lower half of its 35,000 feet thickness consists dominantly of quartzites and the upper half of slates. The series is folded along northeast lines and is broken by northwest faults, the horizontal displacement of some of which exceed a mile. The rocks are intruded by dykes and sills of diabase and by batholithic masses of grey and red granites of Devonian age.

Cambrian formations occur in southeastern Quebec, in southern New Brunswick, and in northeastern Cape Breton. In early Ordovician times sediments were deposited in the St. Lawrence River Region. The Sillery formation of red and green shales with interbedded sandstone has, at Quebec city, a thickness of 2,000 feet. A younger series, called the Lévis, consists of dark shales and thin-bedded limestones with a thickness of possibly as much as 5,000 feet. It forms a band varying in width from 6 to 35 miles; its beds have been folded, faulted and, in places, overturned. Mid-Ordovician rocks occur in southwestern Quebec and in Gaspe and northern New Brunswick. Late Ordovician rocks are developed in the Matapédia River and Chaleur Bay districts. At the close of the Ordovician there were extensive mountain-building movements. Masses of peridotite which intrude the Ordovician and older rocks may have originated at this time.

Silurian rocks are exposed in southeastern Quebec, in Gaspe, in New Brunswick, and in Nova Scotia at Arisaig and a few other places. The next marine invasion was in Lower Devonian time when great thicknesses of sediments with interbedded volcanics accumulated in New Brunswick and Gaspe. During the Middle Devonian, a thick series of sandstones accumulated in Gaspe. In the Upper Devonian there was deposited in the vicinity of Maguasha, on the Gaspe coast, a group of conglomerates, sandstones, and shales, one member of which is noted for the fossil fish it has yielded. Towards the close of the Middle Devonian, the whole Appalachian and Acadian Regions were affected by mountain-building movements accompanied by the intrusion of batholithic masses of granite.

Rocks of Carboniferous age underlie the lowland belt forming much of the southeastern half of New Brunswick, the part of Nova Scotia north of the Cobequid Mountains, part of the lowland south of these mountains, southwestern and northeastern Cape Breton Island and all of Prince Edward Island. With the Lower Carboniferous or Mississippian rocks occur the extensive gypsum deposits and the salt beds of Nova Scotia and New Brunswick and also the bituminous shales of these Provinces. The Upper Carboniferous or Pennsylvanian strata contain the coal measures which occur at Sydney and other places in Nova Scotia, and at Minto in New Brunswick. The Carboniferous beds have in places been folded and faulted but there are wide areas in which the strata have been but little disturbed since they were deposited.

Red sandstones deposited during the Triassic period are exposed in a number of small areas along the Bay of Fundy coast. In places, as at North Mountain, Nova Scotia, the beds are accompanied by lava flows. During the Pleistocene the region was glaciated. At certain stages there were apparently local gathering grounds for glaciers in central New Brunswick and in central Gaspe.

The chief mineral deposits of the Appalachian and Acadian Regions include coal, asbestos, gypsum and barite. The coal and gypsum, as has already been mentioned, occur in the Carboniferous measures. Asbestos occurs in serpentinized peridotite in southeastern Quebec. Chromite also occurs with the peridotite. Gold occurs in quartz veins in the Gold-bearing series of Nova Scotia. Many of the deposits are located on domes or pitching anticlines. Zinc-lead deposits occur in central Gaspe in veins cutting lower Devonian beds. At Stirling in the southern part of Cape Breton Island, zinc, lead, and copper sulphides occur in a series of volcanic rocks. Copper and iron pyrite deposits occur in southern Quebec. Salt occurs in Nova Scotia and New Brunswick.

The St. Lawrence Region.—The St. Lawrence Region is a lowland which stretches westward from Quebec city for a distance of some 600 miles to Lake Huron. It begins as a narrow strip bordering each side of the St. Lawrence River and gradually widens until at Montreal it has a width of 120 miles. Its northern border continues on up the Ottawa River but 50 miles west of Ottawa the belt is interrupted by a projection of the Canadian Shield known as the Frontenac axis which extends southward crossing the St. Lawrence between Kingston and Brockville. West of this axis the lowland occupies a triangular area lying between Lakes Ontario, Erie, and Huron and an east and west line drawn from Kingston to the south end of Georgian Bay. This western part in turn falls into two divisions separated from each other by a prominent topographic feature, the Niagara escarpment, an abrupt, eastward-facing rise of 250 to 300 feet, extending from Niagara River in a northwest direction to Bruce Peninsula. Still farther to the northwest, the escarpment is continued by the northward-facing cliffs of Manitoulin and adjacent islands.

The St. Lawrence Region is underlain by Palæozoic strata ranging in age from late Cambrian to late Devonian. For the most part the beds lie flat or at low angles. In places, however, as in southwestern Ontario, they are folded into broad low domes and elsewhere, as in the vicinity of Ottawa, they are traversed by faults of considerable magnitude. In general the beds dip away from the Canadian Shield so that as one proceeds in a direction leaving the Shield, progressively younger strata are encountered.

The strata are almost wholly of marine origin and were deposited in seas that spread out over a large part of the continent. Differential movements caused these seas to advance and retreat, so that the sediments which were deposited in them vary considerably. There are also local gaps in the sedimentary sequence caused by these movements, but the movements were so gentle that there are no angular unconformities.

The oldest of the Palæozoic formations is the Potsdam sandstone of Upper Cambrian age. It is followed by a thick succession of Ordovician strata. In the Ottawa-Montreal region these beds have a thickness of about 6,000 feet and are the youngest measures there are. They include Beekmantown or early Ordovician dolomitic limestones, Chazy sandstones, shales, and limestones, Black River limestone, and Trenton limestone deposited during the Middle Ordovician, and Upper Ordovician beds made up of the Utica shale, Lorraine shales with limestone and sandy layers, and the Richmond group of shales and limestones. The Lorraine and Richmond rocks are developed chiefly southeast of the St. Lawrence.

West of the Frontenac axis and east of the Niagara escarpment, the middle division of the St. Lawrence Region is also underlain by Ordovician strata. Along the escarpment these beds are succeeded by Silurian measures of which the lowest group is the Medina composed of sandstone, shale, and shaly limestone. These beds are succeeded by shales and limestones of the Clinton group which in turn are followed by the Rochester shale and Lockport dolomite of the Niagara group. Above the Lockport is the Guelph dolomite and this in turn is overlain by the Cayuga group made up of the Salina formation and the Lower Munroe dolomite and shale. The total thickness of the Silurian measures is around 1,750 feet.

The Cayugan beds are terminated by an erosion surface upon which rest Devonian beds about 1,000 feet in thickness. The succession from bottom to top is as follows: Sylvania sandstone, Upper Munroe dolomite, Oriskany sandstone, Onondaga limestone, Delaware limestone, Hamilton limestone and shale, Huron shale, and Port Lambton shale.

The only intrusive rocks of the St. Lawrence Region occur in the eastern part in what are known as the Monteregian Hills. These are eight in number occurring along an approximately east and west line some 50 miles long. The most westerly is Mount Royal at Montreal. The hills are circular or oval in outline and rise abruptly to elevations of from 600 to 1,200 feet above the surrounding flat country. The flanks of the hills consist of altered and hardened sediments and the centres are composed of intrusive rocks, including various alkali types such as nepheline syenites, essexites, etc. The age of these intrusives may be as late as Pliocene.

The whole region was overrun by Pleistocene ice sheets and much of the bedrock is covered by debris left by these glaciers. At Toronto, stratified deposits carrying plant and animal remains lie between deposits of glacial material. These layers show that the region was crossed at least three times by ice sheets coming from central Ungava and that between these advances the region had a climate considerably milder than at present. In late Pleistocene time the region was depressed and an arm of the sea extended up the St. Lawrence Valley as far at least as Brockville and up the Ottawa River valley beyond Ottawa. At Ottawa, the sea stood at least 688 feet above its present level. In this sea, layers of clay were deposited and along its shores deposits of sand accumulated. Eventually uplift of the land caused the withdrawal of this sea to which the name Champlain is given.

The chief mineral occurrences of the St. Lawrence Region include petroleum and natural gas which are produced in southwest Ontario, salt from the counties bordering Lakes Huron and St. Clair, and gypsum from the Grand River valley. Other materials which are available at many places include limestone and dolomite used in chemical and metallurgical industries, rock for construction purposes and clay for brick, tile, and cement manufacture.

The Canadian Shield.—Comprising an area of nearly 2,000,000 square miles, or more than one-half of the whole of Canada, this plateau-like region rises only locally to more than 1,500 or 2,000 feet above sea-level, except in Labrador where altitudes up to 5,000 feet are reached in certain places. Its most characteristic feature is its low relief. Standing anywhere on an elevation an even skyline meets the eye in every direction. Throughout most of the region the hills and ridges rise no more than 100 or 200 feet above the level of the adjacent lakes and valleys; however, along the southern margins of the Shield and in northeastern Quebec along the Labrador border, the relief is considerably more rugged. Though the general relief is low, the region in detail has a very irregular topography consisting of low, hummocky hills and ridges separated by depressions which are commonly occupied by lakes or muskegs. Lakes of all sizes and shapes, and containing numerous islands, dot practically the entire area, in places giving the appearance of a drowned area with only the ridge tops appearing. The rivers as a rule are mere successions of lake expansions connected by stretches in which rapids and waterfalls are numerous.

The rocks of the Shield are mainly of Precambrian age. They form a continental mass which in Precambrian time extended out in all directions beyond the present limits of the Shield. During the succeeding Palæozoic and Mesozoic Eras the Shield was many times at least partly flooded by seas which advanced over it and later retreated. The sediments that accumulated in these seas were largely swept away by later erosion.

From the beginning of the Cambrian period on to the present, the Shield has been a stable mass. During this time it has suffered vertical movement at intervals but it has been unaffected by any folding or mountain-building deformation. Its earlier or Precambrian history, however, was very complex and included periods of volcanism, sedimentation, folding, mountain-building, and igneous intrusion, and also long intervals of quiescence in which erosion was the active process.

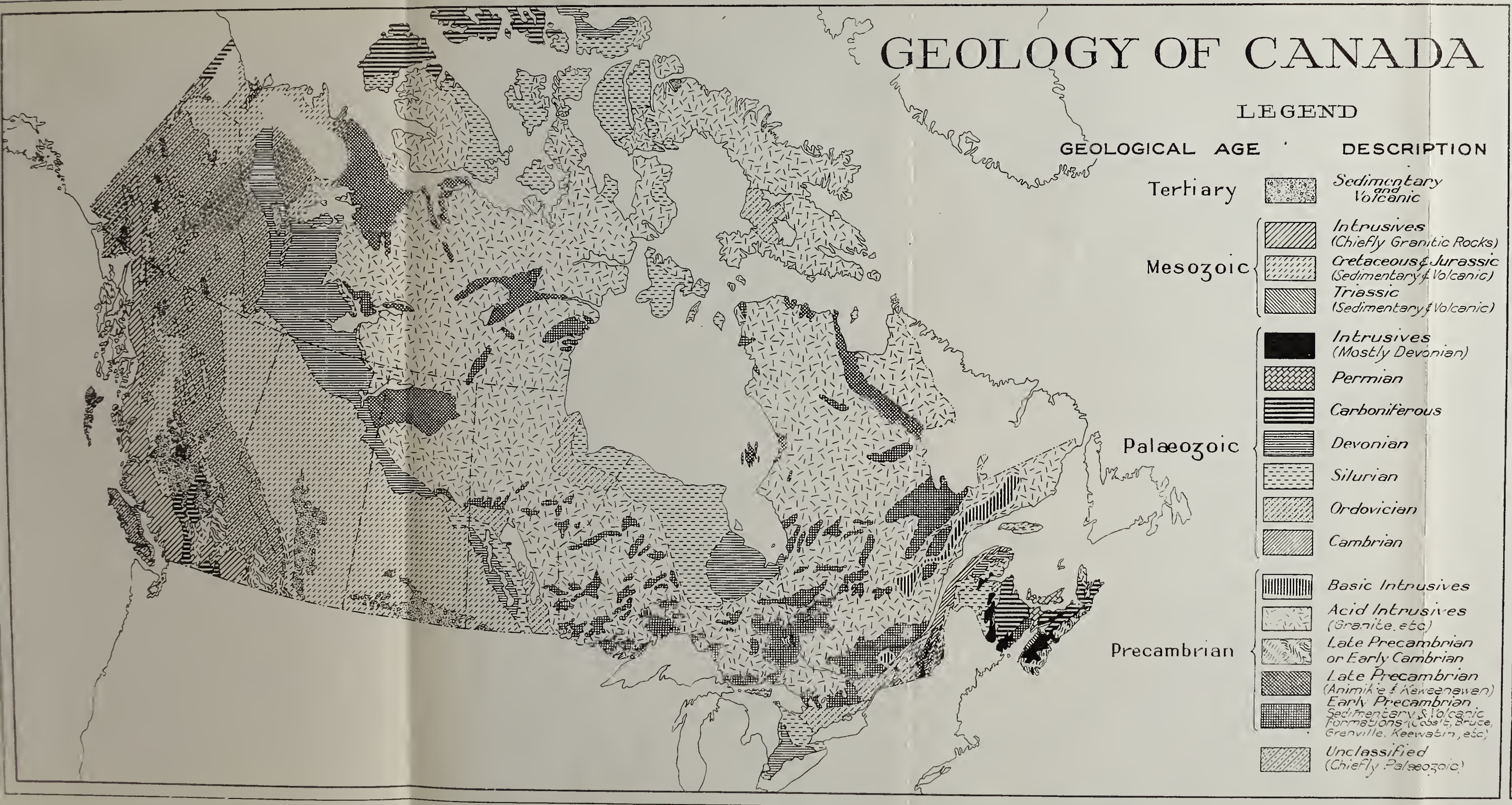
Precambrian time can be conveniently divided into two major divisions, the Archæan or early Precambrian and the Proterozoic or late Precambrian. The Archæan in turn falls into two subdivisions, in the earlier of which volcanism took place on a tremendous scale and lavas and tuffs, usually referred to as Keewatin, accumulated over wide areas in thicknesses measured in thousands of feet. With the volcanics are locally associated sediments, in many places altered to mica schists and gneisses. In the Rainy Lake region of western Ontario a thick succession of such sediments, known as the Couchiching series, lies below the Keewatin lavas. In northern Manitoba and Saskatchewan, interbedded lavas and sediments of probably similar age are referred to as the Wekusko group. In eastern Ontario and southwestern Quebec a thick series composed of limestone, quartzite, and sedimentary gneiss, known as the Grenville series, is also usually regarded as having been deposited during this first part of the early Precambrian Era. This period was terminated by widespread but gentle folding movements accompanied by some intrusions of granite.

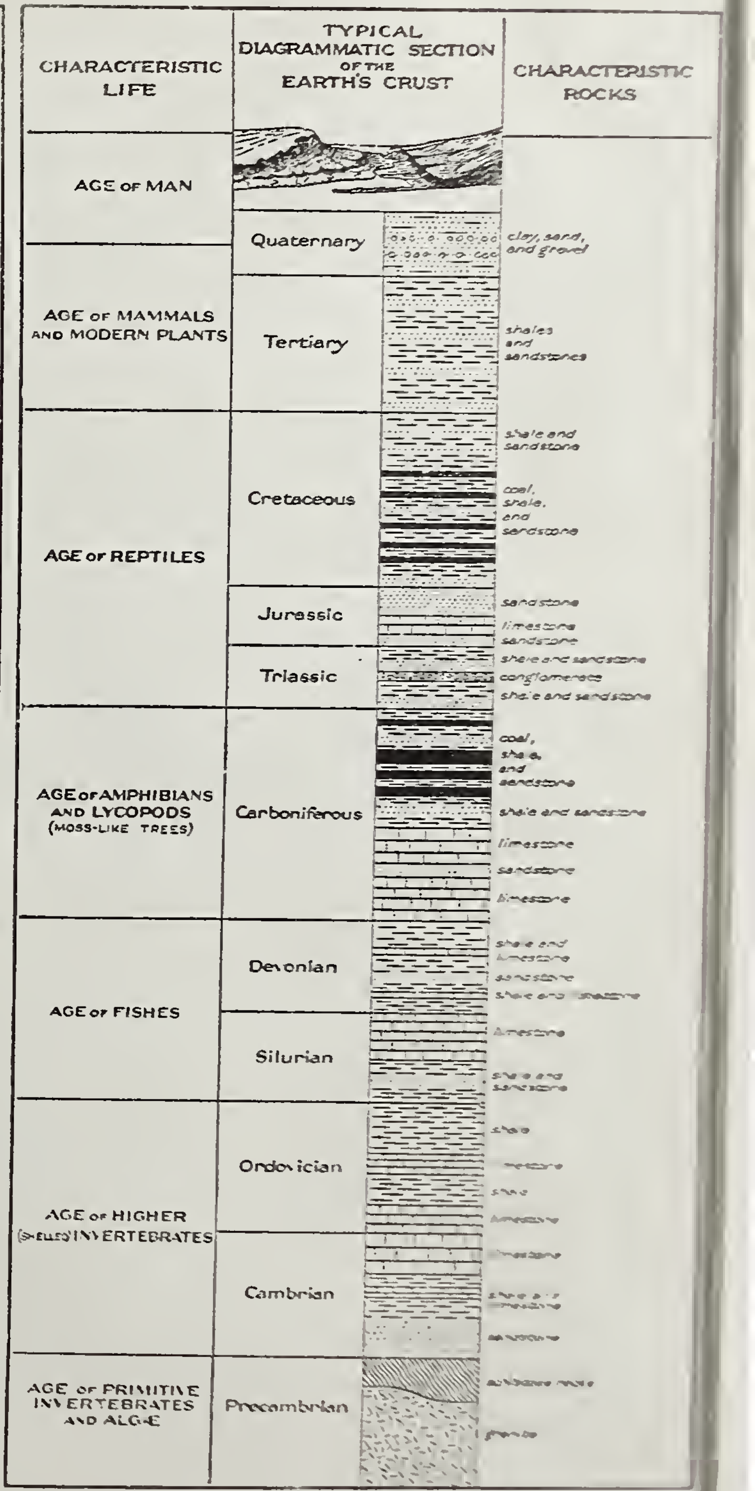
During the second period of the early Precambrian, a thick formation of clastic sediments was deposited. These are commonly referred to in northern Ontario and Quebec as the Timiskaming series. In northern Manitoba and Saskatchewan similar sediments apparently occupying a corresponding stratigraphic position are referred to as the Missi series. Certain series of sediments, such as the Sudbury of the Sudbury region, the Doré at Michipicoten, the Ridout of the Woman River area, and others, are of disputed age being regarded by some geologists as Timiskamian and by others as belonging in the Keewatin. The period of Timiskamian sedimentation was succeeded by a mountain-building revolution which was accompanied by widespread intrusion of granite, commonly referred to as the Algoman batholiths. The time of the Algoman intrusions was a great mineral-forming epoch. Most of the gold ores of the Shield, and the copper-zinc sulphide replacement deposits, such as those of Noranda, Flin Flon, Sherritt-Gordon, and many others, were formed at this time from mineralizers given off by these intrusives. A long period of quiescence followed in which erosion reduced the region to one of low relief.

The Proterozoic or late Precambrian included the long era during which thick series of sediments were deposited on this eroded complex of Archæan rocks. These strata are best developed in the region around Lake Superior and north of Lake Huron. They belong to two systems, an older known as the Huronian and a younger called the Keweenawan. North of Lake Huron the Huronian strata consist of an older series called the Bruce—made up of conglomerates, quartzites, and impure dolomitic limestone, totalling in thickness up to 12,000 feet—and a younger series named the Cobalt—made up of boulder conglomerate and other materials of probable glacial origin, overlain by quartzite and slightly calcareous quartzite, the whole having a thickness up to 10,000 feet. These two series are separated by an unconformity but the time interval represented was probably not great. The beds for the most part lie with only gentle dips except on the north shore of Lake Huron and eastward where they stand at high angles as a result of mountain-building movements. The Huronian rocks are intruded by dykes and sills of quartz diabase extending over wide areas of northeastern Ontario. These intrusions of what is called the Nipissing diabase attracted the silver-cobalt camp of Cobalt, and subsidiary camps. Copper is associated with this diabase in the western part of the region. The Huronian rocks are cut by masses of Killarney granite intruded during the mountain-building period at the close of the Huronian to which reference has been made, and both the Huronian sediments and the Nipissing diabase are cut by small masses of a younger granite which is rich in alkalies.

At Sudbury a series of volcanic and sedimentary rocks filling the basin of the nickel irruptive is known as the Whitewater series. It has usually been referred to as Upper Huronian. The nickel-bearing irruptive was intruded at the base of this series as a saucer-shaped sill or laccolith, 37 miles long and 17 miles wide. It differentiated from norite at the base to micropegmatite at the top. This intrusive is the source of the nickel-copper ores of the region, the deposits occurring along the outer margins of the mass or in offsets where the mass injects the surrounding rocks. Cutting all these rocks are trap and olivine diabase dykes.

GEOLOGY OF CANADA


LEGEND
GEOLOGICAL AGE
DESCRIPTION
Tertiary
Sedimentary and Volcanic
Mesozoic
Intrusives (Chiefly Granitic Rocks)
Cretaceous & Jurassic (Sedimentary & Volcanic)
Triassic (Sedimentary & Volcanic)
Palaeozoic
Intrusives (Mostly Devonian)
Permian
Carboniferous
Devonian
Silurian
Ordovician
Cambrian
Precambrian
Basic Intrusives
Acid Intrusives (Granite, etc)
Late Precambrian or Early Cambrian
Late Precambrian (Animikie & Keweenawan)
Early Precambrian Sedimentary & Volcanic Formations (Cobalt, Bruce, Grenville, Keewatin, etc)
Unclassified (Chiefly Palaeozoic)


CHARACTERISTIC LIFE
TYPICAL DIAGRAMMATIC SECTION OF THE EARTH'S CRUST
CHARACTERISTIC ROCKS
AGE OF MAN
AGE OF MAMMALS AND MODERN PLANTS
AGE OF REPTILES
AGE OF AMPHIBIANS AND LYCOPODS (MOSS-LIKE TREES)
AGE OF FISHES
AGE OF HIGHER (SHELLED) INVERTEBRATES
AGE OF PRIMITIVE INVERTEBRATES AND ALGÆ
Quaternary
Tertiary
Cretaceous
Jurassic
Triassic
Carboniferous
Devonian
Silurian
Ordovician
Cambrian
Precambrian
clay, sand, and gravel
shales and sandstones
shale and sandstone
coal, shale, and sandstone
sandstone
limestone
sandstone
shale and sandstone
conglomerate
shale and sandstone
coal, shale, and sandstone
shale and sandstone
limestone
sandstone
limestone
shale and limestone
sandstone
shale and limestone
limestone
shale and sandstone
shale
limestone
shale
limestone
limestone
shale and limestone
sandstone
schistose rocks
granite

North of Lake Superior is a group of late Precambrian rocks which has been described under the term Kaministikwan. The group includes the Animikie series of conglomerate, iron formation, and shale; the Sibley series of conglomerate, sandstone, limestone, and tuff; and the Osler series of lavas, conglomerate, sandstone, and tuff. Strata resembling the Animikie rocks of the Lake Superior region also occur in the central part of Ungava Peninsula and on the Belcher Islands and the east coast of Hudson Bay.

In the Northwest Territories a group of Proterozoic rocks known as the Great Slave group consists of sediments and volcanics and rests on an old erosion surface crossing granitic intrusives and the upturned edges of Archæan sediments. The group consists of a lower part made up of conglomerate, sandstone, quartzite, shale, iron formation, limestone, tuff, agglomerate, andesite, and dolomite, and an upper part of dolomite, shale, limestone, sandstone, and lavas with interbeds of argillite. Still farther north in the Bathurst Inlet region of the Arctic coast are Proterozoic strata. Resting on granite is the Epworth dolomite which has a thin basal conglomerate and grades up through arkose into a cherty dolomite. Above this is the Kanuyak formation, made up of fine-grained calcareous tuffs and tuff-conglomerates, which at one place shows a structural unconformity with the Epworth beds. A still younger formation is the Goulburn quartzite which contains rounded fragments apparently of the Epworth and Kanuyak. The next younger rocks are those of the Coppermine River series to which reference will be made later.

The Keweenawan, the later division of the Proterozoic, saw the accumulation of great thicknesses of clastic deposits, in places accompanied by volcanic rocks, over various parts of the Shield. The type area is on the south side of Lake Superior where thousands of feet of sediments and lavas are exposed. On the Canadian side several smaller areas occur on the east coast of Lake Superior.

In the northwestern part of Canada are wide areas underlain by flat-lying or only gently dipping beds which are regarded as late Precambrian in age and are commonly correlated with the Keweenawan. The beds consist for the most part of sandstone and arkose with some conglomerate and shale. South of Lake Athabaska is a broad area of these rocks to which the term Athabaska series has been applied. Smaller patches also occur north of the lake and to the northeast is another considerable area along the Dubawnt River. Interbedded basaltic flows and diabase dykes occur in places with these rocks. On Great Slave Lake the Et-then series of clastic sediments is considered to be of equivalent age, while farther north on the Coppermine River and at Bathurst Inlet a series of interbedded sediments and volcanics is known as the Coppermine River series. It carries notable copper deposits. Trap dykes, commonly considered as Keweenawan in age, are of wide occurrence over the entire Shield and are the youngest of the Precambrian rocks.

During the Pleistocene or Glacial period, the Shield was heavily glaciated by huge glaciers of continental extent. One of these sheets had its gathering ground west of Hudson Bay and another in the heart of Labrador. From these centres the ice moved out in all directions. In its advance it scoured off the residual soil, smoothed down the topography, polished and striated the rock surface and, by scattering debris irregularly over the surface, completely disorganized the drainage. The result was the formation of the numerous lakes which are everywhere so characteristic a feature of the region. On the retreat of the glaciers, large temporary lakes stood in places in front of ice and in these accumulated clay and other fine stratified deposits forming what are known as clay belts.

The Canadian Shield is a great store-house of mineral wealth and hence offers an attractive field to the prospector. It is not because its rocks are of Precambrian age that such is the case. It is rather because parts of it offer geological conditions favourable for the occurrence of minerals. Ore deposits the world over have, for the most part, resulted from mineralizing solutions given off from masses of igneous rocks during the late stages of their intrusion and cooling and, where there is an association of older rocks invaded by intrusives, mineralization is usually found, no matter what age the rocks may be. During the Precambrian age the rocks of the Shield, as has already been mentioned, were extensively invaded from time to time by intrusive masses of composition varying from acid to basic. Reference has been made to the nickel-copper deposits associated with the Sudbury irruptive, the silver-cobalt ores occurring with the Nipissing diabase, the gold deposits of Ontario and Quebec associated with porphyry and other granitic rocks. The gold-bearing copper ores of western Quebec, the zinc-copper ores of northern Manitoba, the pitchblende and silver deposits of Great Bear Lake are other important mineral occurrences which are being developed. In eastern Ontario and western Quebec, where granite has intruded limestone and other sediments of the Grenville series, there occur deposits of mica, graphite, feldspar, magnesite, fluorite, kaolin, molybdenite, talc, apatite, and other minerals.

The Interior Plains.—The Interior Plains division of Canada is part of a great plains region in the interior of the continent stretching from the Gulf of Mexico to the Arctic Ocean. In Canada it extends from the Canadian Shield on the east to the Cordillera on the west. At the United States border it has a width of 800 miles but in the extreme northwest at the mouth of the Mackenzie River it is less than 100 miles wide. Throughout most of the region the underlying Palæozoic, Mesozoic, and Tertiary rocks are nearly flat-lying. In the northwestern part of the area, however, the Franklin Range, which lies between Great Bear Lake and Mackenzie River, is composed of folded strata. In western Alberta, also, the rocks are folded and faulted.

Geologically the region falls into three zones. On the east a narrow plain known as the Manitoba Lowland is developed on flat-lying Palæozoic strata which range in age from Ordovician to Devonian. In Manitoba, the Ordovician beds rest on the Precambrian rocks of the Canadian Shield and commonly present a low escarpment facing the Shield. To the northwest this zone broadens to form the Mackenzie Lowland. Here over wide areas Silurian measures form the base of the Palæozoic section. In the Franklin Mountains, however, red quartzites and sandstones of the Mount Clark formation are regarded as of probable Lower Cambrian age. They are succeeded by Middle and Upper Cambrian sandstones and shales. Beds regarded as of probable Ordovician age are also known to occur at the base of Mount Kindle east of Wrigley and beneath the Silurian dolomite of the Great Slave Lake area. Over considerable areas strata of Cretaceous age also occur in the Mackenzie Lowland region, as for example on Liard River, on the western shores of Great Bear Lake, and at several places along the Mackenzie. At the mouth of Bear River is an area covered by partly consolidated Tertiary sands and clay-carrying lignite beds.

The second zone includes much of southwestern Manitoba and southern Saskatchewan and Alberta. It is a broad belt underlain by Cretaceous rocks. Its eastern border, where these strata overlap the underlying Palæozoic sediments, is an abrupt rise known as the Manitoba escarpment. Its surface gradually rises from an elevation of from 1,000 to 2,000 feet at the escarpment to from 4,000 to 5,000 feet at the border of the mountains on the west.

The third zone consists of the plateaux of Wood Mountain and the Cypress Hills which rise up to elevations of 1,000 feet above the level of the surrounding region. They are composed of flat-lying beds of Tertiary age.

In Pleistocene time glacial drift was widely scattered over the region. On the retreat of the ice deposits, clay accumulated in lakes which stood in front of the waning ice sheet. Much of southern Manitoba formed the bed of glacial Lake Agassiz.

The Interior Plains Region is the great wheat-producing area of Canada. Coal mining is an important industry. Bituminous coal and lignites are produced in large quantities in Alberta and in small amounts in Saskatchewan from Cretaceous and Eocene beds. Natural gas is produced in large quantities from various horizons of the Cretaceous in Alberta. Petroleum has been found in the Devonian beds of the lower Mackenzie Valley north of Norman, in Cretaceous strata at a number of localities in Alberta, and in Palæozoic rocks in Turner Valley. Along the Athabaska River the basal member of the Lower Cretaceous, known as the McMurray or the Tar sands, is heavily impregnated with bitumen. Gypsum is obtained from the Palæozoic rocks of Manitoba and also occurs in northern Alberta. Deposits of lead and zinc occur in Devonian limestones at certain places south of Great Slave Lake.

The Cordilleran Region.—The Cordilleran Region comprises the mountainous country bordering the Pacific Ocean. The part of it that lies in Canada has an average width of 400 miles, a length in a northwest direction of 1,500 miles, and an area of 600,000 square miles. It is made up of three principal zones. On the east is the Rocky Mountain Range; along the coast is a broad belt of mountains known as the Coast Range, while between these two lies a third or intermediate belt made up of plateaux and mountain ranges. The Rocky Mountains have a maximum width of 100 miles and have many peaks with elevations of from 10,000 to 12,000 feet. The Coast Range, varying in width from 50 to 100 miles, rises abruptly from the coast to peaks which along the axis of the range reach elevations of from 7,000 to 10,000 feet. The interior plateau and mountain belt is represented in the north by the Yukon plateau, a gently rolling upland broken into a series of flat-topped ridges by valleys several thousand feet deep. In the southern part of British Columbia the interior region is a plateau rising 3,000 to 4,000 feet above sea-level and cut by valleys a thousand or so feet in depth. To the west this plateau either joins the Coast Range directly or else is separated from it by the Cascade Range and other mountains. To the east between the plateau and the Rocky Mountains are a series of ranges separated by northwest-trending valleys. The Selkirk Range with peaks over 11,000 feet is the most important of these.

The rocks of the Cordilleran Region range in age from Precambrian to Recent. The Rocky Mountain belt is composed of great thicknesses of Precambrian, Palæozoic, and Mesozoic sediments, in most places unaccompanied by plutonic or volcanic rocks. The Coast Range is essentially a complex batholith of granite of late Jurassic or early Cretaceous age cutting and enclosing sediments and volcanic rocks of earlier Mesozoic age. The Interior belt of plateaux and mountain ranges is underlain by Palæozoic, Mesozoic, and Tertiary sediments and volcanic rocks. The pre-Tertiary beds are cut by numerous bodies of plutonic rocks and in several districts strata of Precambrian age are exposed.

The geological history of the Canadian Cordilleran Region may be briefly summarized as follows: In Precambrian time sediments which now are in the form of limestones, gneisses, and schists were deposited in the interior belt. In Yukon these strata are known as the Yukon group and in central British Columbia as the Shuswap group. These have been altered by intrusive rocks and included with them may be metamorphosed phases not only of Precambrian rocks but also of much later rocks. In late Precambrian time a thick series of argillites and related sediments accumulated on the site of the southern Rockies and farther west in the region now occupied by the Purcell Mountains. The Purcell series, consisting dominantly of quartzites, has a thickness of over 20,000 feet.

From the Cambrian to the Carboniferous, sedimentation progressed in the Rocky Mountain and Purcell region. Cambrian strata are best known in the Bow and Kicking Horse Valleys along the main line of the Canadian Pacific Railway, where a total thickness of more than 18,000 feet of Cambrian beds are exposed. Another thick section can be seen in the Mount Robson district along the Canadian National Railway. In both these areas the Cambrian beds are succeeded by Ordovician strata. Silurian limestone occurs south of Kicking Horse River, in Yukon, and in the western part of Mackenzie Mountains. In Devonian time the whole eastern Cordilleran Region was submerged and calcareous beds, in places several thousand feet thick, were deposited. In the western part of the Rocky Mountains they in places succeed Silurian beds, but in the south and at various places in the eastern part of the Rockies they rest on late Precambrian or Cambrian strata. Carboniferous beds succeed the Devonian strata at many places in the Rockies. Around Banff they include a thickness of 5,000 feet. In the interior belt around Kootenay Lake, Carboniferous beds rest directly on Precambrian rocks.

During the Triassic and Jurassic, sedimentation and volcanism on a vast scale occurred in the region from the Rocky Mountains westward to the Pacific Ocean, and on the site of what are now Vancouver Island and the Queen Charlotte Islands. In late Jurassic and early Cretaceous times this whole region was deformed. The Selkirk and Coast Ranges were produced and the Coast Range batholith was intruded. In later Cretaceous time, sediments were deposited on both sides of these Jurassic Ranges.

Long-continued erosion in late Cretaceous time reduced the mountains to a peneplain and unroofed their granite cores. During the Eocene occurred the great Laramide revolution which produced the Rocky Mountains. The rocks of this belt were folded and faulted and in places great blocks of older rocks were thrust over younger beds. Local intrusions of igneous rock accompanied the deformation. In the Oligocene, local movements accompanied by igneous intrusions again took place. During the Miocene period great fissure eruptions took place while during the succeeding Pliocene period there was further volcanism with general uplift and subsequent valley cutting. In the Pleistocene or Glacial period most of the Cordilleran Region with the exception of some of the higher ridge tops was covered by what is known as the Cordilleran ice sheet. The whole region was depressed at this time but in post-glacial time there has been uplift ranging from 450 to 1,000 feet.

The Cordilleran Region is a great mineral area. Most of the deposits are related to the Coast Range batholith. They occur principally along the borders of the batholith and in the older rocks surrounded by the intrusives and were produced by mineralizing solutions given off from the igneous masses. Some of the more important deposits are the copper ores of Hidden Creek, Britannia, and Allenby

Mountain, the gold-silver deposits of Salmon River district, the silver-lead-zinc ores of the Slocan, and the Sullivan ore body, the largest silver-lead-zinc mine in the world. Other mineral deposits include coal, which occurs in the Rocky Mountains and on Vancouver Island in beds of Cretaceous and also of Tertiary age, iron ores in Vancouver and Queen Charlotte Islands, placer gold in Yukon and in the Cariboo country in gravels of Tertiary age. and numerous other mineral occurrences.

The Arctic Archipelago and Hudson Bay Lowland.—The Arctic Archipelago includes the islands lying north of the Canadian Shield. They have a land area of over 500,000 square miles. Except for a northward extension of the area of the rocks of the Canadian Shield, the islands for the most part are a series of plateaux formed of gently dipping strata.

The main Precambrian belt extends through Baffin Island to Ellesmere Island. Its rocks consist chiefly of granite and granite-gneiss intrusive into various types of gneisses and schists. Palæozoic strata, including Cambrian, Ordovician, Silurian, Devonian, and Carboniferous beds, cover most of the remaining area. Triassic rocks occur on the Sverdrup Islands and a number of areas are underlain by Tertiary beds some of which are coal-bearing. Coal is also associated with some of the Upper Carboniferous strata at a number of places.

The Hudson Bay Lowland bordering the west side of Hudson Bay has a length in a northwest direction of 800 miles, a width of from 100 to 200 miles and an area of 120,000 square miles. It rises from sea-level with a scarcely perceptible gradient to a height of about 400 feet. It is underlain by flat-lying rocks most of which are of Palæozoic age ranging from Ordovician to Devonian. An area of Mesozoic beds carrying lignite occurs in the Moose River Region.

The seas in which the Palæozoic rocks which are now exposed in the Arctic Archipelago, the Hudson Bay Lowland, and the St. Lawrence Region were deposited extended at times widely over the Canadian Shield. Palæozoic outliers are known on Lake St. John, Lake Nipissing, and Lake Timiskaming in the south, and on Lake Nicholson west of Hudson Bay. These outliers are mere remnants which have survived the erosion of Mesozoic and Tertiary time.

PART III.—SEISMOLOGY

That branch of science which treats of earthquakes has received considerable attention in Canada during recent years. It has been generally recognized that earthquakes are frequent in regions of adjustment of strata and are characteristic of the newer mountain and coast regions where steep level-gradients occur. The energy radiated from an earthquake in the form of elastic waves in the earth is, however, recorded on sensitive seismographs up to great distances, even to the antipodes of the earthquake. Seismological researches, while regularly recording the routine statistical data regarding earthquakes, seek also to determine particular causes. Moreover, they endeavour to ascertain the physical properties of the earth's crust and interior as revealed by the peculiarities in the 'time-distance curves' for earthquakes.

For further information on this subject, see pp. 7-9 of the 1943-44 edition of the Year Book. A description of the Cornwall-Massena Earthquake, Sept. 5, 1944, is given in the 1945 edition, pp. 24-26.

The British Columbia Earthquake, June 23, 1946.*—One of the most severe earthquakes on record, which has affected any part of Canada, occurred along the central east coast of Vancouver Island on June 23, 1946, at $10^h\ 13^m\ 19^s$, a.m., P.D.T. The tremors were well recorded on seismographs at all stations in North America and excellent seismological records were also obtained from a number of stations in Europe.

The epicentre, tentatively designated by the triangulation from seismograph records, was at Lat. 49°9′ N., Lat. 125°3′ W., a point about ten miles S.S.W. of Campbell River. This position and also the focal time given above are subject to minor amendment when the collected seismograms now being assembled are studied later at the Dominion Observatory, Ottawa.

A field study of the earthquake indicates that the epicentre was not even approximately a point, but was certainly a line extending along the eastern edge of Vancouver Island from Deep Bay, opposite the south end of Denman Island to Campbell River. Parts of Quadra Island and Read Island were also affected.

The tremors continued, at Deep Bay for example, for about 30 seconds. This was the estimate of reliable observers throughout much of the main epicentral region above designated.

There were marked changes in the land, particularly at Maple Guard Spit which flanks Deep Bay, at Goose Spit and Drew Harbour on the east side of Quadra Island and near Burdwood Bay on the east coast of the southern promontory of Read Island. Cracks many feet in depth and up to 18 inches in width opened up for lengths to several hundred feet on the sand spits. An area of flat land, 15 to 20 acres in extent was down-dropped in level cultivated fields on Read Island. Some of the faces of the drops were 20 to 30 feet in depth. In addition there was much surface damage of a general nature such as broken chimneys, damaged goods in stores, broken crockery and glassware, windows, etc.

At many places along the coast from Deep Bay to above Campbell River, water spouts were seen; these were described in some cases as 30 feet in height and left permanent records on the sand spits, in the form of craters or "sand blows", which varied from a few inches across to craters five feet in diameter and three feet in depth, after several weeks of exposure to rain. At the time of the earthquake some of these "could not be bottomed with a twelve-foot pole".

The coastal waters in many places were found to have increased in depth just off shore, by measured amounts up to 100 feet. At the west end of Comox Lake, a measured water depth of 33 feet was left where, previously, there had been a beach, well above water. No report, authenticated or otherwise, indicates any place where a rise in the ground occurred, or where marine depths were lessened, except for a long welt which appeared on the beach at Westview, on the mainland south of Powell River. It is believed that all marine depth changes will be in the nature of increases.

In addition to the epicentral region of which no doubt is entertained, there is another section which may have participated in the true tectonic shock. This includes Powell River (unlikely), the Alberni Canal opposite Franklin Creek, and some inlets near the outer end of Alberni Canal (unlikely).

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* Prepared under the direction of C. S. Beals, Ph.D., D.Sc., Acting Dominion Astronomer, Dominion Observatory, Department of Mines and Resources, by Ernest A. Hodgson, Ph. D., Chief, Division of Seismology.

On the Alberni Canal opposite Franklin Creek, considerable changes in depth certainly occurred near the shore, and seem, according to some soundings made, to have been found also in the channel. More than a mile of telegraph cable was lost at this point by the Canadian Pacific Railway Telegraphs and soundings indicated increases in depth of more than 100 feet at some points.

There were many landslides, not only in the primary and secondary epicentral regions, but on most of the lakes on Vancouver Island and even in the Fraser Valley, more than 40 miles east of Vancouver. In many cases, an alluvial fan, extending from the steep rocks bordering the shores of these lakes and resting with its submerged outer rim on the marginal shelf, slipped off into deep water, leaving a steep cliff face, sometimes 30 feet or more in height, at the point where the fan broke from the shore. Local waves of some violence occurred at such points, but general "tidal waves" did not result. Seiches of moderate height were observed for some hours on many of the lakes.

Damage, becoming notably less with increasing distance from the epicentre, was reported throughout Vancouver Island, adjacent territory on smaller islands and on the mainland. The tremors were felt as far south as Portland, Ore., U.S.A., and as far east as Kelowna in the Okanagan Valley, B.C. The point farthest north from which a report was received was Smithers, but it was not a general experience north of Ocean Falls and Bella Coola. The evidence is conclusive that this earthquake was not associated with the Queen Charlotte Islands nor with any submarine fault off the Continental Shelf in the Pacific.

The earthquake was, in general experience, preceded and accompanied by a heavy subterranean roar. At several places, however, competent observers indicate that there was absolutely no sound until the heavy shock occurred.

Unique among earthquakes of this magnitude, only one aftershock was recorded. This was felt generally throughout the main and secondary epicentral districts but was not sufficiently strong to cause any damage. Two other light tremors were reported.

PART IV.—FAUNA AND FLORA

See list at the front of this edition for special material, under this heading, published in previous editions of the Year Book.

PART V.—LANDS, PARKS, SCENIC AND GAME RESOURCES

Canada is a comparatively new country with resources that are, for the most part, in the early stages of development. The fur, fishery and forest resources have, it is true, been the basis of trade for two or three hundred years, but exploitation on the present commercial scale is of relatively recent growth. Nevertheless, much effort has been directed to conservation in the cases of those resources that admit of such methods. Details of such policy are given in the chapters dealing with the individual resources.

Numerous surveys and investigations of the extent and value of the resources have been made from time to time and the results have been reviewed in special publications. Detailed information regarding individual natural resources will be found in the later chapters.

The treatment of resources considered below is concerned only with those summary phases of the subject that can be regarded as falling under the definition of physiography used in its wider interpretation. A classification of lands resources, information on the National Parks and resources in game and scenery properly fall under this head.

Section 1.—Lands Resources

The figures of Table 1 are based on estimates from the Decennial Census of 1941 in regard to agricultural lands, the Dominion Forest Service as regards forested lands, and from the Surveyor General and Chief of the Surveys and Engineering Branch as regards total areas of Canada and of the provinces; they show how the total land area of Canada is made up as between present and potential agricultural lands, present and potential forested lands, and lands that are unproductive as regards surface resources. Between the totals of present and potential agricultural lands and the totals of forested lands there is, of course, duplication to the extent of the agricultural lands under forest.

1.—Land Area of Canada, Classified as Agricultural, Forested or Unproductive

Note.—The land area of Canada is shown classified by tenure in Chapter XXXI.

Description	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
Agricultural Land (Present and Potential)—						
Occupied—						
Improved—Crops and summerfallow	741	906	1,366	9,600	14,972	14,211
Pasture	370	273	464	3,937	5,059	712
Other	41	90	100	623	849	435
Unimproved—Pasture	126	1,143	569	3,267	6,061	7,537
Forest (woodland)	493	3,243	3,455	9,317	6,039	2,390
Other	55	308	240	1,478	2,001	1,108
Totals, Occupied	1,826	5,963	6,194	28,222	34,981	26,393
Unoccupied—Grass, brush, etc	64	3,677	1,056	1,500	5,899	8,197
Forested	80	3,000	9,500	36,893	61,990	16,000
Totals, Unoccupied	144	6,677	10,556	38,393	67,889	24,197
Non-forested	1,397	6,397	3,795	20,405	34,841	32,200
Forested	573	6,243	12,955	46,210	68,029	18,390
Totals, Agricultural Land[1]	**1,970**	**12,640**	**16,750**	**66,615**	**102,870**	**50,590**
Forested Land—						
Softwood—Merchantable	90	4,600	5,000	202,080	36,900	1,830
Young growth	215	3,180	3,000	46,270	29,300	9,110
Mixed wood—Merchantable	150	820	7,000	24,880	24,100	1,100
Young growth	130	480	5,000	20,840	67,400	5,120
Hardwood—Merchantable	15	1,620	1,000	2,880	5,900	1,680
Young growth	10	850	1,000	5,750	10,200	11,600
Total Productive Forested Land	610	11,550	22,000	302,700	173,800	30,440
Unproductive Forested Land	[2]	50	190	69,590	63,400	62,500
Tenure—Privately owned	608	8,220	11,000	26,630	14,240	11,830
Crown land	2	3,380	11,190	345,660	222,960	81,110
Totals, Forested Land	**610**	**11,600**	**22,190**	**372,290**	**237,200**	**92,940**
Net Productive Land[3]	**2,007**	**17,997**	**25,985**	**392,695**	**272,041**	**125,140**
Waste and Other Land[4]	**177**	**2,746**	**1,488**	**131,165**	**91,241**	**94,583**
Totals, Land Area	**2,184**	**20,743**	**27,473**	**523,860**	**363,282**	**219,723**

For footnotes, see end of table, p. 33.

1.—Land Area of Canada, Classified as Agricultural, Forested or Unproductive—concluded

Description	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.[5]	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
Agricultural Land (Present and Potential)—					
Occupied—					
Improved—Crops and summerfallow	52,454	29,422	1,038	4	124,710
Pasture	1,225	978	268		13,286
Other	1,911	1,046	89		5,188[6]
Unimproved—Pasture	30,962	29,290	2,885		81,840
Forest (woodland)	4,010	4,261	1,584		34,792
Other	3,127	2,624	438		11,379
Totals, Occupied	93,689	67,621	6,302[7]	4	271,195
Unoccupied—Grass, brush, etc	8,391	24,019	2,948	10,065	65,816
Forested	23,000	45,000	11,450	4,000	210,913
Totals, Unoccupied	31,391	69,019	14,398	14,065	276,729
Non-forested	98,070	87,379	7,666	10,069	302,219
Forested	27,010	49,261	13,034	4,000	245,705
Totals, Agricultural Land[1]	**125,080**	**136,640**	**20,700**	**14,069**	**547,924**
Forested Lands—					
Softwood—Merchantable	1,500	7,700	35,400	4,200	299,300
Young growth	6,420	24,070	50,490	22,800	194,855
Mixed wood—Merchantable	2,000	9,360	[2]	1,000	70,410
Young growth	9,390	31,430	[2]	5,000	144,790
Hardwood—Merchantable	2,860	3,620	[2]	2,800	22,375
Young growth	23,890	16,880	[2]	11,200	81,380
Total Productive Forested Land	46,060	93,060	85,890	47,000	813,110
Unproductive Forested Land	40,000	37,560	128,560	76,000	477,850
Tenure—Privately owned	10,257	10,004	7,386	Nil	100,175
Crown land	75,803	120,616	207,064	123,000	1,190,785
Totals, Forested Land	**86,060**	**130,620**	**214,450**	**123,000**	**1,290,960**
Net Productive Land[3]	**184,130**	**217,999**	**222,116**	**133,069**	**1,593,179**
Waste and Other Land[4]	**53,845**	**30,801**	**137,163**	**1,325,715**	**1,868,924**
Totals, Land Area	**237,975**	**248,800**	**359,279**	**1,458,784**	**3,462,103**

[1] These totals embrace present agricultural land of all possible classes and land that has agricultural possibilities in any sense. [2] Very small or negligible. [3] Total agricultural land plus forested land minus forested agricultural land. [4] Includes open muskeg, rock, road allowances, urban land, etc. [5] The figures given are strictly estimates but are the best available until definite data are obtainable. [6] Includes 4 sq. miles of occupied land in Yukon and the Northwest Territories. [7] An estimate from provincial sources places the total area of land suitable for tillage at 6,626 sq. miles.

Section 2.—National and Provincial Parks

National Parks of Canada.*—The National Parks of Canada† had their beginning in 1885 when an area of 10 square miles around the hot mineral springs at Banff, Alta., was reserved for public use. In little more than 60 years the system has grown to include 26 parks with an area of over 29,660 square miles, and stretches from the Selkirk Mountains in British Columbia to the east coast of Cape Breton Island, Nova Scotia. These parks are developed and maintained by the National Parks Bureau at Ottawa, for the use and enjoyment of the people of Canada, and have become a tourist attraction of first-rate importance. They serve as a means of preserving regions of outstanding beauty and interest and the native wild life therein. In these areas wild life is rigidly protected and scientifically managed in the public interest, the natural phenomena and flora protected, and the scenic attractions made more easily accessible by the construction of roads and trails throughout the park areas. There are at present 699 miles of surfaced roads, 151 miles of secondary roads, 359 miles of fire roads, and 2,348 miles of trails through these parks. To assist in forest conservation and other aspects of park administration, 1,188 miles of telephone lines have been constructed. A number of these lines link lookout towers and wardens' cabins with park headquarters, and in some of the parks two-way radios are employed to maintain communications between headquarters and actual fire-fighting operations. Administrative buildings, community centres, camp-grounds, facilities for recreation, and other conveniences, are provided by the National Parks Bureau, while hotel, bungalow, cabin and other types of tourist accommodation have been left to private enterprise. Park waters are kept stocked with game-fish reared in government fish hatcheries. Municipal services are provided where there is a permanent resident population. Recreational and cultural activities are fostered and supervised and, in some of the parks, winter sports are actively promoted. The resources of the National Parks are not exhausted by use and may be drawn upon indefinitely, provided a policy of adequate maintenance, supervision and protection is continued.

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* Prepared under the direction of R. A. Gibson, I.S.O., Director, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

† Excludes the Gatineau Park (25 square miles) and Quebec Battlefields Park (0·36 square miles) which are under Federal jurisdiction but, technically, are not National Parks.

Scenic and Recreational Parks.—The scenic and recreational parks include regions of unsurpassed grandeur in the Rocky and Selkirk Mountains of Western Canada. Among these are: Banff, Jasper and Waterton Lakes National Parks in Alberta, on the eastern slope of the Rockies; Kootenay and Yoho Parks in British Columbia, on the western slope of the Rockies; and Glacier and Mount Revelstoke Parks (also in British Columbia), in the Selkirks. While these parks bear a general resemblance to one another, each possesses individual characteristics and phenomena, varying fauna and flora and different types of scenery. Banff Park contains the famous resorts, Banff and Lake Louise, and in Jasper Park is the well-known tourist centre, Jasper. Direct connection between these points is provided by the Banff-Jasper Highway.

Eastward from the mountains are found Prince Albert National Park in Saskatchewan, a typical example of the forest-and-lake country bordering the northwestern plains region, and Riding Mountain National Park in Manitoba, a well-timbered area dotted with numerous lakes, and at a general altitude of 2,000 feet above sea-level. In Ontario are three small park units established primarily as recreational areas. They are Point Pelee, Georgian Bay Islands and St. Lawrence Islands National Parks.

In the Maritime Provinces, two remarkable areas have been established as National Parks. Cape Breton Highlands National Park, situated in the northern part of Cape Breton Island, Nova Scotia, has an area of 390 square miles. Its rugged and picturesque shore line, indented by numerous bays and coves, and its rolling mountainous interior provide a delightful setting reminiscent of Scotland. Girdled on its eastern, northern and western sides by a spectacular highway called the Cabot Trail, and possessing such features as trails, beaches, tennis courts and a golf links, the park offers many diversions to the visitor. Prince Edward Island National Park, containing an area of 7 square miles, extends for a distance of about 25 miles along the northern shore of the island province. Its chief attractions are magnificent sand beaches which permit salt-water bathing under ideal conditions.

The park also contains "Green Gables", the farmhouse made famous by the novels of L. M. Montgomery. A fine golf links, tennis courts, camp-grounds and marine drives enhance its attractions.

Gatineau Park.—Gatineau Park differs from the other National Parks by being under the administration and control of the Federal District Commission, a body established in 1899 by Parliament for the beautification and improvement of Ottawa and environs. The park is situated in the Province of Quebec about 8 air miles from the Federal Capital. It comprises at present about 17,000 acres of wooded hills, valleys, lakes and streams located in the southerly fringe of the Laurentians, the oldest mountains in Canada, and is being preserved in its natural state for the enjoyment of the public.

The park is a game sanctuary. Deer, bear, fox, beaver, mink, raccoon and other fur-bearing animals are quite numerous. Well-located trails, picnic spots and camping sites afford the maximum of pleasure and healthful recreation for the many thousands who patronize this beautiful natural park located at the very doorstep of Canada's capital city. Gatineau Park furnishes excellent opportunities for the enjoyment of skiing and is the principal centre in the Ottawa district for this popular winter sport.

In the further development of this park, it is expected that its area will be increased to 50,000 acres, that overnight cabins will be provided and that administration buildings, shelters, refectories, bath-houses and other essential structures will be added.

Animal Reserves.—The special animal parks were established for the protection of such species of mammalian wild life as buffalo, elk and pronghorned antelope, which at one time were rapidly dwindling in numbers. These reserves include Elk Island National Park in Alberta, 30 miles from Edmonton, which contains a large herd of buffalo and numerous deer, elk and moose. This park also includes a recreational development at Astotin Lake, where bathing, camping, tennis and golf may be enjoyed.

The National Historic Parks and Sites.—A further extension to the National Parks system was made in 1941 when seven areas, previously acquired and administered as historic sites, were designated as National Historic Parks. They are associated with events of outstanding interest in the early history of the Dominion and as such merit the distinction now conferred on them.

Of the National Historic Parks, one of the most interesting is Port Royal in Nova Scotia. This park area, situated on the shores of Annapolis Basin at Lower Granville, contains a replica of the Port Royal Habitation, a group of buildings constructed to shelter the first permanent European settlement in Canada. The present buildings stand on the exact site of the original Habitation erected in 1605 by DeMonts, Champlain and Poutrincourt and destroyed by an English force in 1613. The other National Historic Parks are listed in Table 2, pp. 37-38.

The National Parks Bureau is also charged with the preservation, restoration and marking of historic sites throughout Canada. In the work of acquiring and selecting sites worthy of commemoration, the Bureau has the assistance of the Historic Sites and Monuments Board of Canada, a group of recognized authorities on the history of the section of the country they represent. Of the total number of sites that have been considered by the Board, more than 330 have been suitably marked by the Department of Mines and Resources and many others recommended for future attention.

2.—Locations, Years Established, Areas and Characteristics of the National Parks of Canada and Dominion Reserves, 1946

Park	Location	Year Established	Area	Characteristics
			sq. miles	
Scenic and Recreational Parks				
Banff	Western Alberta, on east slope of Rockies.	1885	2,585·00	Mountain playground containing famous resorts, Banff and Lake Louise. Typical example of central Rockies, with massive ranges, ice-fields, alpine valleys, glacier-fed lakes and hot mineral springs. Big-game sanctuary. Recreations: climbing, motoring, riding, bathing, golf, tennis, fishing, skiing.
Yoho	Eastern British Columbia, on west slope of Rockies.	1886	507·00	Rugged scenery on western slope of Rockies. Contains famous Yoho Valley, with its numerous waterfalls; Kicking Horse Valley; Emerald, O'Hara, and Wapta Lakes; natural bridge. Alpine climbing centre.
Glacier	Southeastern British Columbia, on the summit of the Selkirk Range.	1886	521·00	Superb example of Selkirk Mountain region, with snow-capped peaks, glaciers, luxuriant forests, alpine flower-gardens, numerous big game. Illecillewaet and Asulkan Glaciers; Rogers Pass; and famed Macdonald tunnel.
Waterton Lakes	Southern Alberta, adjoining Glacier Park in Montana, U.S.A.	1895	220·00	Canadian section, Waterton-Glacier International Peace Park. Mountains noted for beauty of colouring; lovely lakes, picturesque trails, waterfalls. Recreations: motoring, riding, fishing, tennis, golf, camping.
Jasper	Western Alberta, on east slope of Rockies.	1907	4,200·00	Rich in historical associations. Immense region of majestic peaks, deep canyons, beautiful lakes, containing famous resort, Jasper. Also Miette Hot Springs, Maligne Lake, Mount Edith Cavell and Columbia Ice-field. Big-game sanctuary. Recreations: motoring, climbing, riding, bathing, fishing, golf, tennis, skiing.
Mount Revelstoke	Southeastern British Columbia, on the west slope of Selkirks.	1914	100·00	Alpine plateau on summit of Mount Revelstoke, accessible by spectacular 18-mile drive from Revelstoke. Contains mountain lakes, alpine flora, camp-sites. Game sanctuary; winter sports centre.
St. Lawrence Islands	In St. Lawrence River between Morrisburg and Kingston, Ont.	1914	190·00 (acres)	Mainland reservation and thirteen islands among "Thousand Islands". Recreational area; camping, fishing, bathing.
Point Pelee	Southern Ontario, on Lake Erie.	1918	6·04	Most southerly mainland point in Canada (41° 54′ N.). Recreational area with unique flora and fine beaches. Resting place for many migratory birds. Bathing, camping.
Kootenay	Southeastern British Columbia, on the west slope of Rockies.	1920	543·00	Mountain park bordering Vermilion-Sinclair section of Banff-Windermere Highway. Contains Sinclair Canyon, Radium Hot Springs, Marble Canyon. Big-game sanctuary. Recreations: motoring, bathing, camping.

2.—Locations, Years Established, Areas and Characteristics of the National Parks of Canada and Dominion Reserves, 1946—continued

Park	Location	Year Established	Area	Characteristics
			sq. miles	
Scenic and Recreational Parks—con.				
Prince Albert	Central Saskatchewan, north of Prince Albert.	1927	1,869·00 (approx.)	Forested lakeland of northwestern Canada with extensive waterways and fine beaches. Interesting fauna; summer resort. Recreations: boating, bathing fishing, camping, tennis, golf.
Riding Mountain	Southwestern Manitoba, west of Lake Winnipeg.	1929	1,148·08	Rolling woodland, with crystal lakes, on summit of Manitoba escarpment. Natural home for big game, including elk, deer, moose. Summer resort. Recreations: bathing, boating, fishing, tennis, golf, camping.
Georgian Bay Islands (including Flowerpot Island Reserve)	In Georgian Bay, near Midland, Ont.	1929	5·37	Thirty islands in Georgian Bay. Recreational and camping area, boating, bathing, fishing. Unique limestone formations and caves on Flowerpot Island.
Cape Breton Highlands.	Northern part of Cape Breton Island, N.S.	1936	390·00 (approx.)	Outstanding example of rugged coast line with mountain background. Remarkable views of Atlantic Ocean and Gulf of St. Lawrence visible from highway; Cabot Trail. Recreations: bathing, boating, golf, tennis, deep-sea fishing, camping.
Prince Edward Island.	North shore of Prince Edward Island.	1937	7·00	Strip 25 miles long on north shore. Recreational area with magnificent beaches. Contains famed "Green Gables" farmstead. Recreations: bathing, boating, fishing, golf, bowling, camping.
Animal Parks and Reserves				
Buffalo	Eastern Alberta, near Wainwright.	1908	197·50	Fenced area originally set aside for the preservation of buffalo and other big game.
Elk Island	Central Alberta, near Lamont.	1913 (Reserved 1906)	51·20	Fenced reserve containing a large herd of plains buffalo; also numerous deer, elk and moose. Recreational area at Astotin Lake; camping, boating, bathing, tennis and golf.
Nemiskam	Southern Alberta, near Foremost.	1922	8·50	Fenced reserve established to protect pronghorned antelope, a species native to the region.
Wood Buffalo[1]	Partly in Alberta (13,675 sq. miles) and partly in Northwest Territories (3,625 sq. miles), west of Athabaska and Slave Rivers.	1922	17,300·00 (approx.)	Immense unfenced area of forests and open plains, dotted with lakes and coursed by numerous streams and rivers. Contains a large herd of buffalo, developed from the native "woodland" type and surplus plains buffalo from Buffalo National Park; also bear, beaver, caribou, deer, moose and waterfowl. Area as yet undeveloped.
Historic Parks			acres	
Fort Anne	Nova Scotia (Annapolis Royal).	1917	31	Site of early Acadian settlement of Port Royal. Contains well-preserved fortifications of earthworks type; also museum housing a fine historical library and numerous exhibits relating to early periods.

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[1] Administered by the Bureau of Northwest Territories and Yukon Affairs of the Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

2.—Locations, Years Established, Areas and Characteristics of the National Parks of Canada and Dominion Reserves, 1946—concluded

Park	Location	Year Established	Area	Characteristics
			acres	
Historic Parks-conc.				
Fort Beauséjour	New Brunswick, near Sackville.	1926	59	Site of French fort erected in middle of 18th century. Renamed Fort Cumberland by British on capture in 1755; original name since restored. Contains museum with many exhibits relating to history of region.
Fortress of Louisbourg.	Cape Breton Island, N.S., 25 miles from Sydney.	1941	340	Old walled city and strategic military and naval station built by the French, 1720–40. Captured by the British in 1758, it was destroyed in 1760. A museum on the site contains interesting mementoes of historic past.
Port Royal	Lower Granville, N.S., 8 miles from Annapolis Royal.	1941	17	Reconstruction on the exact site of the Port Royal "Habitation" erected by DeMonts and Champlain in 1605. The original group of buildings, which sheltered the first permanent European settlement in Canada, was destroyed in 1613.
Fort Chambly	Chambly Canton, Que.	1941	2·5	French fort first constructed in 1665 on Richelieu River. Rebuilt of stone in 1711, it figured in several wars. Contains a museum housing many interesting exhibits. A military cemetery outside walls of fort is included in park area.
Fort Lennox	Ile-aux-Noix, Que., near St. Johns.	1941	210	Military post constructed by British on site of early French fort, to command Richelieu River water route from south. Several well-preserved stone buildings together with the earthworks and moat remain.
Fort Wellington	Prescott, Ont.	1941	8·5	Contains well-preserved earthworks, block-house and other buildings constructed by British as base for defence of communications between Kingston and Montreal. The block-house contains a small museum.
Fort Malden	Amherstburg, Ont.	1941	3	Situated on the banks of the Detroit River, the site of one of the principal frontier military posts in Upper Canada. A new museum building contains interesting exhibits of the region.
Fort Prince of Wales.	Northern Manitoba, near Churchill.	1941	50	Massive stone fort built 1733-71, to secure control of Hudson Bay for Hudson's Bay Company and England. The fort was captured and partially destroyed by a French force in 1782.

SUMMARY OF THE AREAS OF NATIONAL PARKS, BY PROVINCES

Province	Area	Province	Area
	sq. miles		sq. miles
Prince Edward Island	7·00	Saskatchewan	1,869·00
Nova Scotia	390·60	Alberta	20,937·20[1]
New Brunswick	0·09	British Columbia	1,671·00
Quebec	0·33	Northwest Territories	3,625·00[1]
Ontario	11·72		
Manitoba	1,148·16	**Total**	**29,660·10**[2]

[1] Including portion of Wood Buffalo Park.

[2] Not including area of Gatineau Park, 25 sq. miles in extent (see p. 35).

Provincial Parks.—In addition to the National Parks already described, most of the provinces have established provincial parks. The purpose is the same—to maintain areas of great scenic or other interest for the benefit of present and future generations. The provincial parks are administered by the Provincial Governments concerned, and in most cases they have not yet reached the degree of development which marks the National Parks. Following are brief descriptions of the principal provincial parks, by provinces.

British Columbia.—With its spacious scenic areas, no province lends itself more to the creation of parks than does British Columbia. Far exceeding all other provinces in the matter of provincial park acreage, British Columbia has 3 classifications of parks: Class A, of high recreational value with 17; Class B, large parks allowing multiple land use and 4 in number; Class C, a community-type park with 27. These 48 parks have a combined area of 11,480 square miles. In addition there are five Special Act Parks with a total area of 5,415 square miles.

Mount Seymour Park near Vancouver and Manning Park on the Hope-Princeton highway are two of the most important Class A parks and provide both summer and winter recreational opportunities. Both Tweedsmuir and Wells Gray Park of Class B listing possess outstanding mountain, lake and river scenery and some of the finest fishing and big-game areas in the Province. Tweedsmuir Park with its area of 5,400 square miles is the largest wilderness park in North America. Garibaldi Park of 973 square miles and lying a short distance from Vancouver is the most outstanding of the Special Act Parks. This rugged alpine area of peaks, glaciers and snowfields is famous for its meadows of vivid wild flowers and strange geological features. Liard River Park on the Alaska Highway and Strathcona Park in the centre of Vancouver Island are other Special Act scenic areas rapidly coming into prominence. The smaller Class C parks are strategically located throughout the Province to provide many communities with opportunities for convenient outings.

Alberta.—Although Alberta has a larger area of National Parks than any other province, many small park areas have also been set apart by the Provincial Government. These include:—

Aspen Beach Park, 17 acres on the shore of Gull Lake, west of Lacombe, primarily for bathing, outing and picnic purposes; Saskatoon Island Park, 250 acres reserved mainly for picnic purposes, west of Grande Prairie; Gooseberry Lake Park, 320 acres on the shore of Gooseberry Lake north of Consort, has a sports ground and a number of cottages, and accommodation for transients is available in the town of Consort; Lundbreck Falls Park, 13½ acres, a pleasant little beauty spot on the Crowsnest Pass highway west of Macleod, popular with fishermen and motorists; Sylvan Lake Park, 8·6 acres on the shores of Sylvan Lake, 11 miles west of Red Deer, a popular bathing place; Hommy Park, 5¾ acres in the vicinity of Albright, established to serve residents of the district with picnic and outing facilities; Ghost River Park, 535½ acres on a beautiful artificial lake on the Ghost and Bow Rivers west of Calgary; Park Lake Park, 37·2 acres set aside to provide picnic facilities for the districts north and west of Lethbridge; Assineau Reserve, on the Assineau River south of Lesser Slave Lake, set aside to preserve a fine stand of large spruce; Dillberry Lake Reserve, 78·4 acres on the Alberta-Saskatchewan boundary near Chauvin, to preserve the natural beauty of a picturesque lake; Writing-on-Stone Reserve, 796 acres on the Milk River east and north of Coutts, to preserve natural obelisks on which appear hieroglyphics which have never been deciphered; Saskatoon Mountain Reserve, 3,000 acres preserving a fine lookout point in the Grande Prairie district; Little Smoky Reserve, 34·7 acres, a picnic ground and big-game hunting base on Little Smoky River, 12 miles south of Falher; Bad Lands Reserve, 1,800 acres north of Drumheller, established to stop unauthorized removal of fossilized remains of pre-historic animals; Wapiti Reserve, 21·8 acres on a canyon in the Wapiti River ten miles south of Grande Prairie, established as an outing centre for the rural district and also for the use of big-game hunters.

Saskatchewan.—Saskatchewan's seven permanent park reserves are distributed over the southern part of the Province. They are well treed and contain many beautiful lakes providing facilities for quiet recreation, camping, hiking, fishing and boating. They are: Cypress Hills Park, south of Maple Creek and a few miles from the United States boundary, beautifully located in the heart of a provincial forest area; this park has modest bungalow, lodge and cabin accommodation, and an auto-camp equipped with camp kitchens, spring water, and wood for fuel. Moose Mountain Park, an area of 192 square miles honeycombed with lakes and thickly covered with poplar and white birch, is located about 15 miles north of Carlyle, and is popular with visitors from the United States because of its fine scenery and good fishing. Katepwe Park, about 60 miles northeast of Regina, on the famous Qu'Appelle Lakes, has camp kitchens and bathhouses and offers boating, fishing and safe bathing. Good Spirit Lake Park, 20 miles west of Canora, also offers good fishing and bathing, and has excellent camp and picnic grounds with kitchen and bath-house. Greenwater Lake Park is an area of 35 square miles in the forest belt north of Kelvington; it consists mainly of virgin forests and lakes affording good bathing and fishing. Little Manitou Park is an area of about 4 square miles on Manitou Lake, renowned for its medicinal qualities: chateau, cabin, and tourist-camp accommodation are available. Duck Mountain Park, 15 miles northeast of Kamsack, presents a well-forested area and beautiful Madge Lake, which has a shore line of 47 miles, densely wooded and with sandy beaches. Wild life is plentiful and the lake is well stocked with fish.

Manitoba.—Although Manitoba has many areas attractive to the sightseer and vacationist, the Province has as yet established officially, only one which may be described as a provincial park. This is the area set aside in 1930 as the Whiteshell Forest Reserve, a rugged section of the Precambrian part of eastern Manitoba, covering 1,088 square miles. The physical characteristics of this area account for its distinctiveness as a recreational, fishing and hunting reserve. More than 200 lakes and several rivers provide a network of canoe routes throughout the park. Lichen-covered rock cliffs rise steeply from the water and much of the land is rough, hilly and thickly forested with the contrasting green of pine, spruce, poplar, birch and tamarack. Although much of the northern Whiteshell remains in its primitive state, several southern lakes have been developed as resorts. West Hawk, Falcon, Caddy, Brereton, and White Lakes have become most popular. Fishing is an outstanding attraction of the Whiteshell, with northern pike, pickerel, lake trout, bass and perch the most prevalent species. A large sport-fish hatchery with a capacity of 500,000 eggs was constructed in 1942. Game-bird and big-game hunting have long been popular in the northern Whiteshell, though much of the southern portion has been set aside as a game preserve. Early maps show that La Vérendrye was the first white man to explore what is now the Whiteshell Provincial Park. In 1734 he followed the turbulent Winnipeg River, which roughly outlines its northern boundary. Manitoba's "Land of the Granite Cliffs" has had a colourful past and plans for new scenic highways in this region promise it an interesting future.

Ontario.—There are six provincial parks in Ontario. With the exception of Ipperwash Beach Park, which is maintained exclusively for camping, picnicking and swimming, they were all dedicated primarily to the preservation of the forests, fish, birds, and all forms of wild life. The recreational possibilities which they provide are varied and extensive.

Algonquin Provincial Park, 2,741 square miles, is a wilderness area accessible by highway from the southern boundary. There are good camping facilities, with excellent fishing and attractive canoe trips. Quetico Provincial Park, 1,770 square miles, also a wilderness area, affords good camping facilities, fishing and canoe trips. Lake Superior Provincial Park, 540 square miles, is another wilderness area. Camping facilities have not yet been provided nor canoe routes defined but there is good fishing. Sibley Provincial Park, 61 square miles, is a wilderness area as yet without camping facilities. Rondeau Provincial Park, 8 square miles, is partly cultivated, with fine timber stands and highly developed camping facilities. There are some enclosed animals and others running wild: fishing is fair and special duck shooting licences are obtainable. There are no canoe routes in this park. Ipperwash Beach Provincial Park consists of 109 acres of sandy beach and woodland area with highly developed camping facilities. There are no wild animals, but the fishing is fair. Special fishing licences are available in Algonquin and Quetico Parks.

Quebec.—There are four provincial parks in this Province, located in distinctive areas which enables each to offer some special interest. Like those in the other provinces, they have been established in order to preserve natural beauty and to protect the fauna and flora.

Laurentide Park is an area of about 4,000 square miles, beginning a short distance north of the city of Quebec, and has an altitude of about 3,000 feet. It is remarkable for its numerous lakes and tumultuous rivers and its fine speckled trout. Moose, deer, black bears, wolves, and all the fur-bearing animals of the Province abound, but no hunting is permitted. There are two well-organized hotels and about twenty fishing camps. Mount Orford Park has an area of 9,425 acres, located on Orford Mountain, with an altitude of 2,860 feet. The slope of the mountain makes it one of the best skiing tests in Canada, and it also has a picturesque nine-hole golf course. Gaspe Park, 350 square miles, has a flora dating back to an era prior to the Great Continental Glacier. The main object of this park is to preserve the last herds of caribou on the south shore of the St. Lawrence. Speckled trout abound in the lakes and rivers of the park. The Mont Laurier-Senneterre Highway Reserve, 2,600 square miles, in the western part of the Province, is crossed on its full length by the road leading from Montreal to the Abitibi region. It is remarkable for its numerous lakes and rivers which provide favourable conditions for long canoe excursions. Fish include grey trout, northern pike, pickerel, black bass, and, in a limited number of lakes, speckled trout. There are two establishments for the accommodation of travellers, also a stopping place maintained by the Department of Game and Fisheries where cabins and boats may be rented.

Maritime Provinces.—There are National Parks in Prince Edward Island and Nova Scotia, and many civic parks, but none in any of the Maritime Provinces which comes within the classification of Provincial Parks.

Section 3.—Game and Scenery

The resources of Canada from the standpoints of the sportsman and tourist are both unique and varied. In the wooded and unsettled areas of each province there are many moose, deer, bear and smaller game, while in the western part of the Dominion there are also wapiti, caribou, mountain sheep, mountain goat, grizzly bear and lynx. Mountain lion, or cougar, are found in British Columbia and in the mountains of Alberta, while in the Northwest and the Far North there still exist herds of buffalo and musk-ox, which are given absolute protection by the Dominion Government.

Ruffed and spruce grouse are found in the wooded areas of Canada from coast to coast. Prairie chicken and Hungarian partridge inhabit the open prairies and the partly timbered areas of the three mid-western provinces. The Franklin grouse is native to the mountains of the West and the ptarmigan, an Arctic grouse, lives in the treeless northern plains and is also found in the high mountains of Alberta and British Columbia.

The valleys of Nova Scotia and New Brunswick, the broken lake-country of northern Quebec, Ontario, Manitoba and Saskatchewan, as well as the mountain districts of British Columbia and Alberta, offer a variety of attractions including innumerable game preserves that have won for the Dominion a reputation as a paradise for sportsmen and campers. And not only are these attractions available to those who travel by land; the lakes and rivers that form a network over the eastern part of the country particularly, make water travel in smaller craft feasible and attractive. Further, winter sports, the unusual attractions of winter scenery and the bracing though rigorous winter climate may be enjoyed at many winter and year-round resorts. In both Dominion and Provincial Parks, while angling is permitted, the hunting of game is forbidden, and the wild-life resources preserved. Elsewhere, however, there is available for the hunter, at proper seasons, a wealth of game species.

Migratory Birds Treaty.—This Treaty and the legislation making it effective throughout Canada are administered by the National Parks Bureau of the Department of Mines and Resources and the Royal Canadian Mounted Police. The Treaty, which has been effective since 1916, has as its object the protection of the valuable migratory bird life of Canada and the United States. Information concerning the Treaty, and regulations enacted for its enforcement, may be obtained from the Controller, National Parks Bureau, Department of Mines and Resources, Ottawa.

PART VI.—CLIMATE, METEOROLOGY, ETC.

Section 1.—Climate

From time to time articles pertaining to weather, temperature and precipitation in Canada have been published in previous editions of the Year Book. These articles are listed at the front of this edition under the heading "Climate and Meteorology".

Section 2.—Meteorology

See list at the front of this edition, under the heading "Climate and Meteorology", for special material published in previous editions of the Year Book.

Subsection 1.—Investigations of Weather Cycles Made by the Dominion Observatory*

It has long been known that auroral displays and terrestrial magnetism fluctuate with the eleven-year sunspot cycle. This was explained a third of a century ago as due to the fluctuation in ultra-violet light from the sun thus causing a variation in the ionization of the upper atmosphere. The changing ionization causes variations in the development of haziness and cloudiness thus inducing fluctuations in the weather and in living conditions. This view is still maintained; and with this rational theory as to causes, numerous investigations of fluctuations in meteorology and forms of life have been made. A short outline of some of the results is given herewith.

Temperature records in Canada show, in the mean, higher values at sunspot minimum than at maximum. Some of the prairie stations exhibit ranges as high as 4°F. in the mean sunspot cycle. However, since the records cover a short span of years a smoothing formula is used, thus: 0·25 (a+2b+c) where b is the mean value for the year of the cycle in question and a and c the values for the year before and the year after. This gives a conservative value for the range.

In the following table the smoothed mean eleven-year cycles in temperature are given for 13 stations in Canada. The years are for sunspot minima, 1 year after, 2 years after, and so on. The mean cycle for these stations shows the progressive influence of the sunspot cycle, the excess at minimum over maximum averaging 1·4°F.

TEMPERATURES, SMOOTHED MEAN ELEVEN-YEAR CYCLES

Year.......	0	1	2	3	4	5	6	7	8	9	10	11	Range F.°
St. John's, Newfoundland, 1872-1920													
	41·4	40·9	40·4	40·5	40·4	40·2	40·3	40·4	40·6	40·7	40·4	40·8	1·2
Charlottetown, Prince Edward Island, 1873-1925													
	42·4	42·0	41·4	41·0	40·7	40·8	41·0	41·2	41·4	41·7	42·0	42·4	1·7
Halifax, Nova Scotia, 1874-1928													
	44·1	43·3	43·3	43·0	42·8	43·2	43·4	43·4	43·7	43·7	43·8	44·3	1·5
Southwest Point, Anticosti, 1882-1920													
	35·4	34·8	34·3	34·4	34·2	34·0	34·3	35·0	35·7	35·7	35·1	35·1	1·4
Montreal, Quebec, 1873-1925													
	42·8	42·6	42·7	42·2	41·5	41·9	42·2	42·0	42·1	42·5	42·7	42·8	1·3
Toronto, Ontario, 1873-1925													
	46·0	45·7	45·5	45·0	44·7	44·8	44·7	44·7	45·2	45·6	45·8	46·1	1·4
Winnipeg, Manitoba, 1873-1925													
	36·7	35·8	34·9	34·1	33·9	34·2	34·2	34·4	34·6	34·6	35·2	36·3	2·8
Prince Albert, Saskatchewan, 1885-1925													
	33·6	33·3	32·7	32·0	32·2	33·0	32·8	32·3	32·2	32·1	32·0	32·9	1·6
Edmonton, Alberta, 1883-1925													
	38·4	37·7	37·1	36·4	36·3	36·3	35·8	35·6	35·8	35·8	36·3	37·9	2·8
Calgary, Alberta, 1884-1925													
	39·5	39·1	38·6	37·9	38·1	38·6	38·3	38·1	37·9	37·3	37·1	38·5	1·6
Kamloops, British Columbia, 1891-1925													
	47·3	47·8	47·5	46·8	47·2	47·9	47·1	46·7	46·8	46·6	46·4	46·8	1·1
Barkerville, British Columbia, 1888-1925													
	36·1	35·9	35·6	34·8	35·0	35·6	34·9	34·2	34·6	35·1	35·5	36·1	1·9
Victoria, British Columbia, 1891-1925													
	50·1	50·0	50·0	49·5	49·2	49·3	49·3	49·2	49·1	49·1	49·4	50·0	1·0
Mean.......	41·1	40·7	40·3	39·8	39·7	40·1	39·9	39·7	40·0	40·0	40·1	40·7	1·4

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* Prepared by John L. O'Connor, under the direction of C. S. Beals, Ph.D., D.Sc., Acting Dominion Astronomer, Dominion Observatory, Department of Mines and Resources.

The sunspot influence on temperature is reflected in earlier dates of freeze-up at sunspot maximum than at minimum, the records of "first ice", 1910-37, for Quebec and Montreal, harbours showing a range of 7 days in the smoothed mean December dates, being as follows:—

Year.......	0	1	2	3	4	5	6	7	8	9	10	11	Range F.
First Ice, December Dates, Quebec, 1910-1937	8·0	8·3	6·7	3·3	2·8	2·6	1·9	2·4	3·7	3·4	2·6	8·1	6·4
First Ice, December Dates, Montreal, 1911-1937	12·5	11·8	9·4	6·2	5·6	4·4	4·6	8·2	9·0	7·6	7·9	10·6	8·1
Mean, Quebec and Montreal	10·3	10·1	8·1	4·8	4·2	3·5	3·3	5·3	6·4	5·5	5·3	9·4	7·0

Precipitation in Canada follows, in general, a direct phase response to the sunspot cycle in coastal regions (oceanic or aquene type) and an inverse phase for the interior (inland type or terrene type). Intermediate regions show various blends of the two, sometimes exhibiting two pulses in the eleven-year cycle. Direct and inverse types are given in the following statement:—

PRECIPITATION, SMOOTHED MEAN ELEVEN-YEAR CYCLES (INCHES)

Year.......	0	1	2	3	4	5	6	7	8	9	10	11	Range p.c.
OCEANIC TYPE (AQUENE)													
St. John's, Newfoundland, 1874-1920	49·2	48·8	51·4	55·5	57·6	57·6	57·8	55·8	54·7	55·5	55·3	52·8	18
Victoria, British Columbia, 1891-1925	26·4	26·9	28·2	29·9	31·1	29·3	27·7	29·9	31·4	30·0	28·8	27·5	18
INLAND TYPE (TERRENE)													
Montreal, Quebec, 1874-1925	44·6	41·1	38·9	38·9	39·5	39·5	40·3	40·3	39·4	39·6	42·0	45·2	16
Toronto, Ontario, 1874-1925	33·1	33·2	33·0	32·3	32·2	31·7	30·1	29·9	30·9	30·5	29·5	31·2	10
Prince Albert, Saskatchewan, 1885-1925	17·0	15·6	15·0	14·8	13·9	13·5	15·0	16·8	16·6	16·0	18·3	19·1	41
Qu'Appelle, Saskatchewan, 1884-1935	19·6	19·7	19·8	20·6	19·5	16·6	15·8	16·7	17·7	18·6	18·6	18·6	30
Regina, Saskatchewan, 1896-1936	14·8	14·8	15·3	16·7	16·1	13·9	13·1	13·9	14·7	15·5	15·8	14·8	27
Swift Current, Saskatchewan, 1895-1936	15·3	15·3	15·4	16·2	15·8	14·6	13·3	13·4	15·2	16·8	16·3	15·3	26
Edmonton, Alberta, 1883-1925	20·5	20·1	19·7	18·4	16·8	15·9	16·2	15·4	13·8	14·9	19·5	21·7	57
Calgary, Alberta, 1885-1924	20·0	20·5	17·2	13·0	12·0	12·8	14·0	14·8	14·3	15·4	18·7	19·7	71
Kamloops, British Columbia, 1895-1925	10·7	11·1	11·2	10·4	10·3	10·0	9·0	8·9	9·3	9·2	10·2	10·0	26

Increased ionization at sunspot maximum causes increased cloudiness and greater precipitation near the ocean where water vapour is plentiful. At sunspot minimum the greater clarity of the atmosphere causes greater heating of the inland regions, with greater evaporation and upward convection currents, resulting in more thunderstorms at sunspot minimum than at maximum, as shown in the following statement:—

Year.....	0	1	2	3	4	5	6	7	8	9	10	11	Range p.c.
						Ontario Thunderstorms, 10 Stations, 1901-1912							
Mean.......	22·1	25·3	19·4	20·6	16·8	21·2	17·6	17·5	16·0	19·9	21·2	21·0	—
Smoothed..	22·6	23·0	21·2	19·4	18·9	19·2	18·5	16·9	16·9	19·3	20·8	21·3	36
						Manitoba Thunderstorms, 2 and 3 Stations, 1901-1912, 1913-1922							
Mean.......	16·2	17·6	14·0	17·2	16·0	12·8	16·2	11·8	19·0	15·6	14·0	21·5	—
Smoothed..	17·9	16·4	15·7	16·1	15·5	14·5	14·3	14·7	16·4	16·1	16·3	18·3	28
						Canada Thunderstorms, 1901-1912, 25 Stations: Alberta, 4; Saskatchewan, 4; Manitoba, 2; Ontario, 10; Quebec, 5							
Mean.......	16·8	17·3	13·8	15·2	14·3	14·7	14·0	12·8	13·7	14·8	16·1	14·7	—
Smoothed..	16·4	16·3	15·0	14·6	14·6	14·4	13·9	13·4	13·7	14·8	15·4	15·6	22

The greater cloudiness at and after sunspot maximum resulting in lessened, evaporation, is an important factor in the discharge of the Niagara River, 1860-1926, which shows a striking influence of the sunspot cycle as follows:—

Year............	0	1	2	3	4	5	6	7	8	9	10	11
						Niagara River Discharge, in 1,000 cu. ft. per sec., 1860-1926						
Mean.............	203	201	197	202	214	207	211	209	206	208	200	196
Smoothed........	201	200	199	204	209	210	209	209	207	206	202	199

Such important meteorological variations in the sunspot cycle cause serious organic fluctuations such as revealed by the annual growth-rings in trees. The type of response to the eleven-year cycle in general follows the type exhibited by precipitation for the region; thus the trees give some idea of the nature of meteorological fluctuations in regions where no records have been kept.

Section 3.—Standard Time and Time Zones in Canada

See list at the front of this edition for special material under this heading published in previous editions of the Year Book.

CHAPTER II.—HISTORY AND CHRONOLOGY

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PART I.—HISTORY

Section 1.—Outlines of Canadian History

See list at front of this edition for material under this heading published in previous editions of the Year Book.

Section 2.—A Bibliography of Canadian History

See list at front of this edition for material under this heading published in previous editions of the Year Book.

Section 3.—Historical Records

See list at front of this edition for material under this heading published in previous editions of the Year Book.

PART II.—CHRONOLOGY

Note.—*The Ministries, dates of elections and lengths of sessions of Dominion Parliaments are given in Tables* 2 *and* 5, *respectively, of Chapter III. Changes in Provincial Legislatures and Ministries from Confederation to 1923 are given at pp. 75-84 of the 1924 Year Book, from 1924 to 1937 at pp. 110-118 of the 1938 Year Book and from 1934-46 in Table* 13, *pp. 76-84. References regarding these matters have, therefore, been dropped from the Chronology below.*

1497. June 24, Eastern coast of North America discovered by John Cabot.

1498. Cabot discovered Hudson Strait.

1501. Gaspar Corte Real visited Newfoundland and Labrador.

1524. Verrazano explored the coast of Nova Scotia.

1534. July 24, Jacques Cartier, on his first voyage, erected a cross at Gaspe, claiming the land for the King of France.

1535. Cartier's second voyage. He ascended the St. Lawrence to Stadacona (Quebec) (Sept. 14), and Hochelaga (Montreal) (Oct. 2).

1541. Cartier's third voyage. He planted wheat, cabbages, turnips, and lettuces near Cap Rouge River.

1542-43. De Roberval and his party wintered at Cap Rouge, and were rescued by Cartier on his fourth voyage.

1557. Sept. 1, Death of Cartier at St. Malo, France.

1592. Straits of Juan de Fuca discovered by de Fuca.

1603. June 22, Champlain's first landing in Canada, at Quebec.

1604. De Monts settled colony on island in the St. Croix River.

1605. Founding of Port Royal (Annapolis, N.S.).

1608. Champlain's second visit. July 3, Founding of Quebec.

1609. July, Champlain discovered Lake Champlain.

1610-11. Hudson explored Hudson Bay and James Bay.

1611. Brûlé ascended the Ottawa River.

1612. Oct. 15, Champlain made Lieutenant-General of New France.

1613. June, Champlain ascended the Ottawa.

1615. Champlain explored Lakes Nipissing, Huron, and Ontario (discovered by Brûlé and Le Caron).

1616. First schools opened at Tadoussac and on the site of the city of Three Rivers.

1617. Arrival at Quebec of the first colonist, Louis Hébert and his family.

1621. Code of laws issued and register of births, deaths, and marriages opened in Quebec. Nova Scotia granted to Sir William Alexander by King James I.

1622. Lake Superior discovered by Brûlé.

1623. First British settlement of Nova Scotia.

1627. New France and Acadia granted to the Company of 100 Associates.

1628. Port Royal taken by Sir David Kirke.

1629. Apr. 24, Treaty of Susa between France and England. July 20, Quebec taken by Sir David Kirke.

1632. Mar. 29, Canada and Acadia restored to France by the Treaty of St. Germain-en-Laye.

1633. May 23, Champlain made first Governor of New France.

1634. July 4, Founding of Three Rivers.

1634-35. Exploration of the Great Lakes by Nicolet.

1635. Dec. 25, Death of Champlain at Quebec. Founding of the first college at Quebec.

1638. June 11, First recorded earthquake in Canada.

1640. Discovery of Lake Erie by Chaumonot and Brébeuf.

1641. Resident population of New France, 240.

1642. May 17, Founding of Ville-Marie (Montreal) by Maisonneuve.

1646. Exploration of the Saguenay by Dablon.

1647. Lake St. John discovered by de Quen.

1648. Mar. 5, Council of New France created.

1649. Mar. 16-17, Murder of Fathers Brébeuf and Lalemant by Indians and massacre of the Hurons.

1654. August, Acadia taken by an expedition from New England.

1656. Acadia granted by Cromwell to La Tour, Temple, and Crowne.

1659. June 16, François de Laval arrived in Canada as Vicar-Apostolic.

1660. May 21, Dollard des Ormeaux and sixteen companions killed by Iroquois at the Long Sault, Ottawa River.

1663. Company of 100 Associates dissolved. Feb. 5, Severe earthquake. April, Sovereign Council of New France established.

1664. May, Company of the West Indies founded.

1665. Mar. 23, Talon appointed Intendant.

1666. Feb.-Mar. First Census: population of New France, 3,215.

1667. July 21, Acadia restored to France by the Treaty of Breda.

1668. Foundation of the "Little Seminary" at Quebec by Laval. Mission at Sault Ste. Marie founded by Marquette.

1670. May 2, Charter of the Hudson's Bay Company granted.

1671. Population of Acadia, 392.

1672. Apr. 6, Comte de Frontenac appointed Governor.

1673. June 13, Cataraqui (Kingston) founded.

1674. Oct. 1, Laval became first Bishop of Quebec.

1675. Population of New France, 7,832.

1678. Niagara Falls visited by Hennepin.

1679. Ship *Le Griffon* built on Niagara River above the Falls by La Salle.

1681. Population of New France, 9,677.

1682. Frontenac recalled.

1685. First issue of card money.

1686. Population of New France, 12,566; of Acadia, 894.

1687. Mar. 18, La Salle assassinated.

1689. June 7, Frontenac reappointed Governor. Aug. 5, Massacre of whites by Indians at Lachine.

1690. May 21, Sir William Phips captured Port Royal but was repulsed in an attack on Quebec (Oct. 16-21).

1692. Population of New France, 12,431. Oct. 22, Defence of Verchères against Indians by Madeleine de Verchères.

1693. Population of Acadia, 1,018.

1695. Population of New France, 13,639.

1697. Sept. 20, By the Treaty of Ryswick, places taken during the war were mutually restored. D'Iberville defeated the Hudson's Bay Company's ships on Hudson Bay.

1698. Nov. 28, Death of Frontenac.

1701. La Motte Cadillac built a fort at Detroit. Population of Acadia (north part of peninsula), 1,134.

1703. June 16, Sovereign Council of Canada became Superior Council and membership increased from 7 to 12.

1706. Population of New France, 16,745.

1708. Death of Laval.

1709. British invasion of Canada.

1710. Oct. 13, Port Royal taken by Nicholson.

1711. Sept. 1, Part of the British fleet, proceeding against Quebec, wrecked off the Seven Islands.

1713. Apr. 11, Treaty of Utrecht; Hudson Bay, Acadia, and Newfoundland ceded to Great Britain. August, Louisbourg founded by the French. Population of New France, 18,469.

1718. Foundation of New Orleans, carrying out French plan to control the Mississippi and the St. Lawrence.

1720. Apr. 25, Governor and Council of Nova Scotia appointed.

1721. June 19, Burning of about one-half of Montreal. Census population of New France, 25,923.

1726. Population of New France, 29,859.

1730. Population of New France, 34,753.

1733. Discovery of Lake Winnipeg by La Vérendrye.

1734. Road opened from Quebec to Montreal.

1737. Iron smelted on banks of St. Maurice.

1739. Census population of New France, 43,362.

1743. The younger La Vérendrye discovered the Rocky Mountains.

1745. June 17, Taking of Louisbourg by Pepperell and Warren.

1748. Oct. 18, Treaty of Aix-la-Chapelle. Louisbourg restored to France in exchange for Madras, India.

1749. June 21, Founding of Halifax—British immigrants brought to Nova Scotia by Governor Cornwallis, 2,544 persons. Fort Rouillé (Toronto) built.

1750. St. Paul's Church, Halifax (oldest Anglican church in Canada), built.

1752. Mar. 25, Issue of the Halifax *Gazette*, first newspaper in Canada.

1754. Census population of New France, 55,009.

1755. First post office in what is now Canada established at Halifax and direct mail communication with Great Britain. June 16, Surrender of Fort Beauséjour on the Isthmus of Chignecto to the British. Sept. 10, Expulsion of the Acadians from Nova Scotia.

1756. Seven Years' War between Great Britain and France began.

1758. July 26, Final capture of Louisbourg by the British. Oct. 7, First meeting of the Legislature of Nova Scotia.

1759. July 25, Fort Niagara taken by the British. July 26, Beginning of the siege of Quebec. July 31, French victory at Beauport Flats. Sept. 13, Defeat of the French on the Plains of Abraham. Death of Wolfe. Sept. 14, Death of Montcalm. Sept. 18, Surrender of Quebec.

1760. Apr. 28, Victory of the French under Lévis at Ste. Foy. Sept. 8, Surrender of Montreal. Military rule set up in Canada. Population of New France, 70,000.

1762. First British settlement in New Brunswick.

1763. Feb. 10, Treaty of Paris, by which Canada and its dependencies were ceded to the British. May, Rising of Indians under Pontiac and defeat of British at Bloody Run (July 31). Oct. 7, Civil government proclaimed. Cape Breton and Ile St. Jean (P.E.I.) annexed to Nova Scotia: Labrador, Anticosti, and Magdalen Islands to Newfoundland. Nov. 21, General James Murray appointed Governor-in-Chief. Post offices established at Montreal, Three Rivers, and Quebec.

1764. June 21, First issue of the Quebec *Gazette*. Aug. 13, Civil government established. Population of Nova Scotia, 12,998.

1765. Publication of the first book printed in Canada, "Catéchisme du Diocèse de Sens". May 18, Montreal nearly destroyed by fire. Population of Canada, 69,810.

1766. July 24, Peace made with Pontiac at Oswego.

1768. Charlottetown, Ile St. Jean (P.E.I.), founded. Apr. 11, Great fire at Montreal. Apr. 12, Sir Guy Carleton (Lord Dorchester) Governor-in-Chief.

1769. Ile St. Jean (P.E.I.) separated from Nova Scotia.

1770-72. Hearne's journey to the Coppermine and Slave Rivers and Great Slave Lake.

1773. Suppression of the Order of Jesuits in Canada and escheat of their estates.

1774. June 22, The Quebec Act passed.

1775. May 1, The Quebec Act came into force. Outbreak of the American Revolution. Montgomery and Arnold invaded Canada. Nov. 12, Montgomery took Montreal. Dec. 31, Montgomery defeated and killed in an attack on Quebec.

1776. Americans defeated and driven from Canada by Carleton.

1777. Sept. 18, General Frederick Haldimand Governor-in-Chief.

1778. Capt. James Cook explored Nootka Sound and claimed the northwest coast of America for Great Britain. June 3, First issue of the Montreal *Gazette*.

1783. Sept. 3, Treaty of Versailles, recognizing the independence of the United States. Organization of the Northwest Company at Montreal. Kingston (Ont.) and Saint John (N.B.) founded by the United Empire Loyalists.

1785. May 18, Incorporation of Parrtown (Saint John, N.B.).

1786. Apr. 22, Lord Dorchester again Governor-in-Chief. Oct. 23, Government of New Brunswick moved from Saint John to Fredericton.

1787. C. Inglis appointed Anglican Bishop of Nova Scotia—the first colonial bishopric in the British Empire.

1788. King's College, Windsor, N.S., opened. Sailing packet service restored between Great Britain and Halifax.

1789. Quebec and Halifax Agricultural Societies established.

1790. Spain surrendered her exclusive rights on the Pacific coast.

1791. The Constitutional Act divided the Province of Quebec into Upper and Lower Canada, each with a lieutenant-governor and legislature. The Act went into force Dec. 26. Sept. 12, Colonel J. G. Simcoe, first Lieutenant-Governor of Upper Canada.

1792. Sept. 17, First Legislature of Upper Canada opened at Newark (Niagara). Dec. 17, First Legislature of Lower Canada opened at Quebec. Vancouver Island circumnavigated by Vancouver.

1793. Apr. 18, First issue of the *Upper Canada Gazette*. July 9, Importation of slaves into Upper Canada forbidden. Rocky Mountains crossed by (Sir) Alexander Mackenzie, who reached the Pacific Ocean. York (Toronto) founded by Simcoe.

1794. Nov. 19, Jay's Treaty between Great Britain and the United States.

1795. Pacific coast of Canada ceded to the British by the Spaniards.

1796. Government of Upper Canada moved from Niagara to York (Toronto).

1798. St. John's Island (Ile St. Jean, population 4,372) renamed Prince Edward Island.

1800. Founding of New Brunswick College, Fredericton (now University of N.B.). The Rocky Mountains crossed by David Thompson.

1803. Settlers sent by Lord Selkirk to Prince Edward Island.

1806. Nov. 22, Issue of *Le Canadien*—first wholly French newspaper. Population—Upper Canada, 70,718; Lower Canada, 250,000; New Brunswick, 35,000; Nova Scotia, 65,000; Prince Edward Island, 9,676.

1807. Simon Fraser explored the Fraser River.

1809. Nov. 4, First Canadian steamer ran from Montreal to Quebec.

1811. Lord Selkirk's Red River Settlement founded on land granted by Hudson's Bay Company.

1812. June 18, Declaration of war by the United States. July 12, Americans under Hull crossed the Detroit River. Aug. 16, Detroit surrendered by Hull to Brock. Oct. 13, Defeat of the Americans at Queenston Heights and death of General Brock.

1813. Jan. 22, British victory at Frenchtown. Apr. 27, York (Toronto) taken and burned by the Americans. June 5, British victory at Stoney Creek. June 24, British, warned by Laura Secord, captured an American force at Beaver Dams. Sept. 10, Commodore Perry destroyed the British flotilla on Lake Erie. Oct. 5, Americans under Harrison defeated the British at Moraviantown. Tecumseh killed. Oct. 26, Victory of French-Canadian troops under de Salaberry at Châteauguay. Nov. 11, Defeat of the Americans at Crysler's Farm. British stormed Fort Niagara and burned Buffalo.

1814. Mar. 30, Americans repulsed at La Colle. May 6, Capture of Oswego by the British. July 5, American victory at Chippawa. July 25, British victory at Lundy's Lane. July, British from Nova Scotia invaded and occupied northern Maine. Sept. 11, British defeat at Plattsburg on Lake Champlain. Dec. 24, Treaty of Ghent ended the war. Population—Upper Canada, 95,000; Lower Canada, 335,000.

1815. July 3, Treaty of London regulated trade with the United States. The Red River Settlement destroyed by the Northwest Company but restored by Governor Semple.

1816. June 19, Governor Semple killed. The Red River Settlement again destroyed.

1817. July 18, First Treaty with the Northwest Indians. Lord Selkirk restored the Red River Settlement. Opening of the Bank of Montreal; first note issue Oct. 1. Population of Nova Scotia, 81,351. Rush-Bagot Convention with the United States, limiting naval armament on the Great Lakes, signed.

1818. Oct. 20, Convention at London regulating North American fisheries. Dalhousie College, Halifax, founded. Bank of Quebec founded.

1819–22. Franklin's overland Arctic expedition.

1820. Oct. 16, Cape Breton re-annexed to Nova Scotia.

1821. Mar. 26, The Northwest Company absorbed by the Hudson's Bay Company. Charter given to McGill College.

1822. Population of Lower Canada, 427,465.

1824. Population of Upper Canada, 150,066; of New Brunswick, 74,176.

1825. Oct. 6, Great fire in the Miramichi district, N.B. Opening of the Lachine Canal. Population of Lower Canada, 479,288.

1826. Founding of Bytown (Ottawa).

1827. Sept. 29, Convention of London relating to the territory west of the Rocky Mountains. Population of Nova Scotia (not including Cape Breton), 123,630.

1829. Nov. 27, First Welland Canal opened. McGill University opened. Upper Canada College founded.

1831. June 1, The North Magnetic Pole discovered by (Sir) James Ross. Population—Upper Canada, 236,702; Lower Canada, 553,134; Assiniboia, 2,390.

1832. Outbreak of cholera in Canada. Incorporation of Quebec and of Montreal. Bank of Nova Scotia founded. May 30, Opening of the Rideau Canal.

1833. Aug. 18, The steamer *Royal William*, built at Quebec, crossed the Atlantic from Pictou, N.S., to England.

1834. Feb. 21, The Ninety-Two Resolutions on public grievances passed by the Assembly of Lower Canada. Mar. 6, Incorporation of Toronto. Population of Upper Canada, 321,145; of New Brunswick, 119,457; of Assiniboia, 3,356.

1836. July 21, Opening of the first railway in Canada from Laprairie to St. John's, Que. Victoria University opened at Cobourg (afterwards moved to Toronto).

1837. Report of the Canada Commissioners. Rebellion in Lower Canada (Papineau) and Upper Canada (W. L. Mackenzie). Nov. 23, Gas lighting first used in Montreal.

1838. Feb. 10, Constitution of Lower Canada suspended and Special Council created. Mar. 30, The Earl of Durham, Governor-in-Chief. Apr. 27, Martial law revoked. June 28, Amnesty to political prisoners proclaimed. Nov. 1, Lord Durham, censured by British Parliament, resigned. Population—Upper Canada, 399,422; Assiniboia, 3,966; Nova Scotia, 202,575.

1839. Feb. 11, Lord Durham's report submitted to Parliament. Oct. 19, Charles Poulett Thomson (Lord Sydenham) arrived in Canada as Governor-in-Chief.

1840. July 23, Passing of the Act of Union. First ship of the Cunard Line arrived at Halifax.

1841. Feb. 10, Union of the two provinces of Upper and Lower Canada as the Province of Canada, with Kingston as capital. Feb. 13, Draper-Ogden Administration. Apr. 10, Halifax incorporated. June 13, Meeting of the first United Parliament. Sept. 19, Death of Lord Sydenham. Population—Upper Canada, 455,688; Prince Edward Island, 47,042.

1842. Mar. 10, Opening of Queen's University, Kingston. Aug. 9, The Ashburton Treaty. Sept. 16, Baldwin-Lafontaine Administration.

1843. June 4, Victoria, B.C., founded. Dec. 12, Draper-Viger Administration. King's (now University) College, Toronto, opened.

1844. May 10, Seat of government moved from Kingston to Montreal. Knox College, Toronto, founded. Population of Lower Canada, 697,084.

1845. May 28 and June 28, Great fires at Quebec. Franklin started on his last Arctic expedition.

1846. May 18, Kingston incorporated. June 15, Oregon Boundary Treaty. June 18, Draper-Papineau Administration. First telegraph, operated by Toronto, Hamilton and Niagara Electro-Magnetic Telegraph Co., opened.

1847. May 29, Sherwood-Papineau Administration. Nov. 25, Montreal-Lachine Railway opened.

1848. Mar. 11, Lafontaine-Baldwin Administration. May 30, Fredericton incorporated. St. Lawrence canals opened to navigation.

1849. Apr. 25, Signing of the Rebellion Losses Act; rioting in Montreal and burning of the Parliament Buildings. Nov. 14, Toronto made the capital. Vancouver Island granted to the Hudson's Bay Company. Population of Assiniboia, 5,391.

1851. Apr. 6, Transfer of the postal system from the British to the Colonial Government of Canada; uniform rate of postage introduced. Apr. 23, Postage stamps issued. Aug. 2, Incorporation of Trinity College, Toronto. Sept. 22, Quebec became the capital. Oct. 28, Hincks-Morin Administration. Responsible government granted to Prince Edward Island. Population—

Upper Canada, 952,004; Lower Canada, 890,261; New Brunswick, 193,800; Nova Scotia, 276,854.

1852. July 8, Great fire at Montreal. Dec. 8, Laval University, Quebec, opened. Grand Trunk Railway chartered.

1853. Opening of Grand Trunk Railway from Montreal to Portland.

1854. June 5, Reciprocity Treaty with the United States. Sept. 11, MacNab-Morin Ministry. Seigneurial tenure in Lower Canada abolished. Secularization of the clergy reserves.

1855. Jan. 1, Incorporation of Ottawa. Jan. 27, MacNab-Taché Administration. Mar. 9, Opening of the Niagara Railway suspension bridge. Apr. 17, Incorporation of Charlottetown. Oct. 20, Government moved to Toronto.

1856. The Legislative Council of Canada made elective. First meeting of the Legislature of Vancouver Island. May 24, Taché-J. A. Macdonald Administration. Oct. 27, Opening of the Grand Trunk Railway from Montreal to Toronto. Population of Assiniboia, 6,691.

1857. Nov. 26, J. A. Macdonald-Cartier Administration. Dec. 31, Ottawa chosen by Queen Victoria as future capital of Canada.

1858. February, Discovery of gold in Fraser River Valley. July 1, Introduction of Canadian decimal currency. Aug. 2, Brown-Dorion Administration. Aug. 5, Completion of the Atlantic cable; first message sent. Aug. 6, Cartier-J. A. Macdonald Administration. Aug. 20, Colony of British Columbia established. Control of Vancouver Island surrendered by the Hudson's Bay Company.

1859. January, Canadian silver coinage issued. Sept. 24, Government moved to Quebec.

1860. Aug. 8, The Prince of Wales (King Edward VII) arrived at Quebec. Sept. 1, Laying of the corner-stone of the Parliament Buildings at Ottawa by the Prince of Wales. Prince of Wales College, Charlottetown, founded.

1861. Aug. 14, Great flood at Montreal. Sept. 10, Meeting of the first Anglican provincial synod. Population — Upper Canada, 1,396,091; Lower Canada, 1,111,586; New Brunswick, 252,047; Nova Scotia, 330,857; Prince Edward Island, 80,857.

1862. May 24, Sandfield Macdonald-Sicotte Administration. Aug. 2, Victoria, B.C., incorporated.

1863. May 16, Sandfield Macdonald-Dorion Administration.

1864. Mar. 30, Taché-J. A. Macdonald Administration. Conferences on confederation of British North America; Sept. 1, at Charlottetown; Oct. 10–29, at Quebec. Oct. 19, Raid of American Confederates from Canada on St. Albans, Vermont.

1865. Feb. 3, The Canadian Legislature resolved on an address to the Queen praying for union of the provinces of British North America. Aug. 7, Belleau-J. A. Macdonald Administration. Oct. 20, Proclamation fixing the seat of government at Ottawa.

1866. Mar. 17, Termination of the Reciprocity Treaty by the United States. May 31, Raid of Fenians from the United States into Canada; they were defeated at Ridgeway (June 2) and retreated across the border (June 3). June 8, First meeting at Ottawa of the Canadian Legislature. Nov. 17, Proclamation of the union of Vancouver Island with British Columbia.

1867. Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the Province of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces named Ontario and Quebec; Viscount Monck, first Governor General; Sir John A. Macdonald, Prime Minister. Nov. 6, Meeting of the first Dominion Parliament.

1868. Apr. 7, Murder of D'Arcy McGee at Ottawa. July 31, The Rupert's Land Act authorized the acquisition by the Dominion of the Northwest Territories.

1869. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.

1870. May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to the Dominion and Manitoba admitted into Confederation. Aug. 24, End of Red River Rebellion.

1871. Apr. 2, First Dominion Census (population 3,689,257). Apr. 14, Act establishing uniform currency in the Dominion. May 8, Treaty of Washington signed. July 20, British Columbia entered Confederation. Dominion undertook to begin construction of a transcontinental railway within two years and its completion within ten years.

1872. Canadian Pacific railway general charter passed by the Dominion Parliament authorizing construction of a transcontinental line by a private company.

1873. May 23, Act establishing the North West Mounted Police. July 1, Prince Edward Island entered Confederation. Nov. 8, Incorporation of Winnipeg.

1874. May 26, The Dominion Elections Act assented to. May, Ontario Agricultural College, Guelph, opened.

1875. Apr. 8, The Northwest Territories Act established a Lieutenant-Governor and a Northwest Territories Council. April-May, Letting of first contract and commencement of work upon the Canadian Pacific Railway as a Government line; work commenced at Fort William. June 15, Formation of the Presbyterian Church in Canada.

1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.

1877. October, First exportation of wheat from Manitoba to the United Kingdom. Founding of the University of Manitoba.

1878. July 1, Canada joined the International Postal Union.

1879. May 15, Adoption of a protective tariff ("The National Policy").

1880. Royal Canadian Academy of Arts founded; first meeting and exhibition, Mar. 6. May 11, Sir A. T. Galt appointed first Canadian High Commissioner in London. Sept. 1, All British possessions in North

America and adjacent islands, (except Newfoundland and its dependencies), annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of the contract with the present Canadian Pacific Railway Co. for the completion of the Canadian Pacific Railway.

1881. Apr. 4, Second Dominion Census (population 4,324,810). May 2, First sod turned of the Canadian Pacific Railway as a company line.

1882. May 8, Provisional District of Assiniboia, Saskatchewan, Athabaska and Alberta formed. May 25, First meeting of the Royal Society of Canada. Aug. 23, Regina established as seat of government of the Northwest Territories.

1883. Sept. 5, Formation of the Methodist Church in Canada.

1884. Aug. 11, Order in Council settling the boundary of Ontario and Manitoba.

1885. Mar. 26, Outbreak of Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. July 20, The Electoral Franchise Act assented to. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie. Nov. 16, Execution of Riel.

1886. Apr. 6, Incorporation of Vancouver. June 7, Archbishop Taschereau of Quebec made first Canadian Cardinal. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific Railway left Montreal for Port Moody. July 31, First quinquennial census of Manitoba: population 108,640.

1887. Interprovincial Conference at Quebec. Apr. 4, First Colonial Conference at London.

1888. Feb. 15, Signing of Fishery Treaty between United Kingdom and United States at Washington. August, Rejection of Fishery Treaty by United States Senate.

1890. Mar. 31, The Manitoba School Act abolished separate schools.

1891. Apr. 5, Third Dominion Census (population 4,833,239). June 6, Death of Sir John A. Macdonald.

1892. Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States.

1893. Apr. 4, First sitting of the Bering Sea Arbitration Court. Dec. 18, Archbishop Machray, of Rupert's Land, elected first Anglican Primate of all Canada.

1894. June 28, Second Colonial Conference at Ottawa.

1895. Sept. 10, Opening of new Sault Ste. Marie Canal.

1896. August, Gold discovered in the Klondyke.

1897. June 22, Celebration throughout the Empire of the Diamond Jubilee of H. M. Queen Victoria. July, Third Colonial Conference at London. Dec. 17, Award of the Bering Sea Arbitration Court.

1898. June 13, The Yukon District established as a separate Territory. Aug. 1, The British Preferential Tariff went into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25, British Imperial penny (2-cent) postage introduced.

1899. Oct. 1, Mgr. Diomède Falconio arrived at Quebec as first permanent Apostolic Delegate to Canada. Oct. 11, Beginning of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.

1900. Feb. 27, Battle of Paardeberg. Apr. 26, Great fire at Ottawa and Hull.

1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Apr. 1, Fourth Dominion Census (population 5,371,315). Sept. 16-Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York (King George V and Queen Mary).

1902. May 31, End of South African War; peace signed at Vereeniging. June 30, Meeting of Fourth Colonial Conference at London. Aug. 9, Coronation of H. M. King Edward VII. December, First message sent by wireless from Canada to the United Kingdom via Cape Breton, N.S.

1903. Jan. 24, Signing of the Alaskan Boundary Convention. June 19, Incorporation of Regina. Oct. 20, Award of the Alaskan Boundary Commission.

1904. Feb. 1, Dominion Railway Commission established. Apr. 19, Great fire at Toronto. Oct. 8, Incorporation of Edmonton.

1905. Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.

1906. Roald Amundsen, in the schooner *Gjoa*, arrived at Nome, Alaska, on completion of the first traverse of the North-West Passage. University of Alberta founded. Hydro-Electric Power Commission of Ontario formed. Oct. 8, Interprovincial Conference at Ottawa.

1907. Apr. 15-May 14, Fifth Colonial Conference at London. Oct. 17, Transatlantic wireless open for limited public service. University of Saskatchewan founded. Dec. 6, First recorded flight in Canada of a heavier-than-air machine carrying a passenger (Dr. Graham Bell's tetrahedral kite, *Cygnet*).

1908. University of British Columbia founded. Jan. 2, Establishment at Ottawa of Branch of the Royal Mint. June 21-23, Bicentenary of Bishop Laval celebrated at Quebec. July 20-31, Quebec tercentenary celebrations. Visit of Prince of Wales to Quebec. Aug. 2, Great fire in Kootenay Valley, B.C.

1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Feb. 23, First flight in Canada of a heavier-than-air machine under its own power (McCurdy's *Silver Dart*).

1910. May 6, Death of King Edward VII and accession of King George V. Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal. New trade agreements made with Germany, Belgium, Holland and Italy. Oct. 11, Inauguration at Berlin (now Kitchener) of Ontario Hydro-Electric Power Commission's transmission system.

1911. May 23-June 20, Imperial Conference at London. June 1, Fifth Dominion Census (population 7,206,643). June 22, Coronation of H. M. King George V. July 11, Disastrous fires in Porcupine District of Ontario.

1912. Mar. 29-Apr. 9, First Canada-West Indies Trade Conference held at Ottawa. Apr. 15, Loss of the steamship *Titanic*. Appointment of Dominions Royal Commission. May 15, Extension of the boundaries of Quebec, Ontario and Manitoba.

1914. May 20, Loss of the steamship *Empress of Ireland*. Aug. 4, War with Germany; Aug. 12, with Austria-Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent of over 33,000 troops landed at Plymouth, England.

1915. February, First Canadian Contingent landed in France and proceeded to Flanders. Apr. 22, Second Battle of Ypres. Apr. 24, Battle of St. Julien. May 20-26, Battle of Festubert. June 15, Battle of Givenchy.

1916. Jan. 12, Order in Council authorizing increase in number of Canadian troops to 500,000. Feb. 3, Destruction by fire of the Houses of Parliament at Ottawa. Apr. 3-20, Battle of St. Eloi. June 1, Census of Prairie Provinces. June 1-3, Battle of Sanctuary Wood. July 1, Commencement of the Battle of the Somme. Sept. 1, Corner-stone of new Houses of Parliament laid by Duke of Connaught.

1917. Feb. 12-May 15, Imperial Conference. Mar. 20-May 2, Meetings at London of Imperial War Cabinet. Mar. 21-Apr. 27, Imperial War Conference. Apr. 6, United States declared war on Germany. Apr. 9, Capture of Vimy Ridge. Aug. 15, Battle of Loos, capture of Hill 70. Aug. 29, Passing of Military Service Act. Sept. 20, Completion of Quebec Bridge. Parliamentary franchise extended to women. Oct. 26-Nov. 10, Battle of Passchendaele. Dec. 6, Serious explosion at Halifax, N.S.

1918. Mar. 21, Germans launched critical offensive on Western Front. March-April, Second Battle of the Somme. June-July, Prime Minister and colleagues attended Imperial War Conference at London. July 18, Allies assumed successful offensive on Western Front. Aug. 12, Battle of Amiens. Aug. 26-28, Capture of Monchy le Preux. Sept. 2-4, Breaking of Drocourt-Quéant line. Sept. 16, Austrian peace note. Sept. 27-29, Capture of Bourlon Wood. Sept. 30, Bulgaria surrendered and signed armistice. Oct. 1-9, Capture of Cambrai. Oct. 6, First German peace note. Oct. 20, Capture of Denain. Oct. 25-Nov. 2, Capture of Valenciennes. Oct. 31, Turkey surrendered and signed armistice. Nov. 4, Austria-Hungary surrendered and signed armistice. Nov. 11, Capture of Mons. Germany surrendered and signed armistice.

1919. Feb. 17, Death of Sir Wilfrid Laurier. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 15, Arrival of the Prince of Wales for official tour in Canada. Aug. 22, Formal opening of Quebec Bridge by the Prince of Wales. Sept. 1, The Prince of Wales laid foundation stone of Peace Tower, Parliament Buildings, Ottawa. Sept. 1-Nov. 10, Special peace session, thirteenth Parliament of Canada. Dec. 20, Organization of "Canadian National Railways" by Order in Council.

1920. Jan. 10, Ratifications of the Treaty of Versailles. Feb. 19, Shareholders ratified agreement for sale of the Grand Trunk Railway to the Dominion Government. May 31-June 18, Trade Conference at Ottawa between Dominion and West Indian Governments. July 16, Ratifications of the Treaty of St. Germain-en-Laye. Aug. 9, Ratifications of the Treaty of Neuilly-sur-Seine. Nov. 15, First meeting of League of Nations Assembly began at Geneva, Switzerland.

1921. May 10, Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census (population 8,787,949). June 20-Aug. 5, Imperial Conference. Nov. 11, Opening of Conference on Limitation of Armament at Washington.

1922. Feb. 1, Arms Conference at Washington approved five-power treaty, limiting capital ships, and disapproving unrestricted submarine warfare and use of poison gas. Apr. 10, General Economic Conference at Genoa, Italy. July 13, Conference between Canada and the United States *re* perpetuating the Rush-Bagot Treaty regarding armament on the Great Lakes. Aug. 7, Allied Conference on war debts and reparations opened at London. Oct. 10, Mudania Armistice signed by Britain, France and Turkey. Dec. 9, Reparations Conference opened at London.

1923. Apr. 1, Removal of British embargo on Canadian cattle effective. Oct. 1, Imperial Conference and Economic Conference at London.

1924. Apr. 23, British Empire Exhibition opened by King George V at Wembley, England, with the Prince of Wales as President. Aug. 6-16, Meeting of the British Association for the Advancement of Science at Toronto. Aug. 11-16, Meeting of International Mathematical Congress at Toronto.

1925. June 10, Inauguration of the United Church of Canada. Nov. 20, Death of Queen Alexandra.

1926. June 1, Census of Prairie Provinces. Oct. 19-Nov. 23, Imperial Conference at London. Nov. 26, Hon. C. Vincent Massey appointed Envoy Extraordinary and Minister Plenipotentiary to the United States.

1927. Mar. 1, Labrador Boundary Award by the Privy Council defining the Newfoundland boundary in the Labrador Peninsula. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. July 1-3, Diamond Jubilee of Confederation celebrated throughout the Dominion. July 30, The Prince of Wales, Prince George, the Rt. Hon. Stanley Baldwin and party, arrived at Quebec on a visit to Canada. September, Canada elected as a non-permanent member of the Council of the League of of Nations at Geneva. November, Dominion-Provincial Conference on the relations between the Dominion and the provinces.

1928. Apr. 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving Quebec the only province with a bi-cameral legislature.

1929. Oct. 15-25, The Rt. Hon. J. Ramsay MacDonald, Prime Minister of the United Kingdom, visited Canada. Dec. 14, Transfer of natural resources to Manitoba and Alberta.

1930. Jan. 21, Five-power Naval Arms Conference opened at London; Canada represented by Hon. J. L. Ralston. Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. Aug. 1, H. M. Airship R-100 arrived at Montreal being the first transatlantic lighter-than-air craft to reach Canada. Oct. 1, Imperial Conference at London.

1931. June 1, Seventh Dominion Census (population 10,376,786). June 30, The Statute of Westminster exempting the Dominion and the provinces from the operation of the Colonial Laws Validity Act and the Merchant Shipping Act approved by the House of Commons. Sept. 21, United Kingdom suspended specie payments, following which Canada restricted the export of gold. Nov. 21, Abnormal Importations Act, extending preference to Empire products, assented to in the United Kingdom. Dec. 12, Statute of Westminster establishing complete legislative equality of the Parliament of Canada with that of the United Kingdom became effective.

1932. July 21-Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.

1933. Jan. 17-19, Dominion-Provincial Conference. May 18, Celebration of the 150th anniversary of the landing of the Loyalists at Saint John, N.B.

1934. August, Celebration at Gaspe of the 400th anniversary of the first landing of Jacques Cartier.

1935. Mar. 11, Bank of Canada commenced business. May 6, Celebrations throughout the Empire of the 25th anniversary of the accession of King George V to the Throne. Dec. 9, Dominion-Provincial Conference met at Ottawa; Naval Limitation Conference met at London.

1936. Jan. 20, Death of H. M. King George V and accession of H. M. King Edward VIII. Mar. 8, German forces reoccupied the Rhineland in defiance of the Treaty of Versailles. June 1, Quinquennial Census of the Prairie Provinces. July 1-Sept. 7, Celebration in Vancouver of the Golden Jubilee of that city and of the C.P.R. July 26, Unveiling of Vimy Memorial in France by H. M. King Edward VIII. Dec. 11, Abdication of H. M. King Edward VIII and accession of H. M. King George VI.

1937. May 12, Coronation of H. M. King George VI. July 8, Imperial Airways flying boat *Caledonia* arrived at Montreal from Southampton, inaugurating the experimental phase of the Transatlantic Airways. Nov. 29, Royal Commission on Dominion-Provincial Relations met at Winnipeg.

1938. Mar. 4, Unanimous judgments of the Supreme Court of Canada on the Alberta constitutional references made in favour of the Dominion Government. (See 1941 Year Book, p. 19, for further references to this subject.) Mar. 13, Seizure of Austria by Germany. Sept. 12, Herr Hitler's speech at Nuremberg, followed by clashes on the Czechoslovak border, and international crisis. Sept. 15, Meeting of Rt. Hon. Neville Chamberlain and Herr Hitler at Berchtesgaden. Sept. 22-23, Meeting of Mr. Chamberlain and Herr Hitler at Godesberg. Sept. 28, Mobilization of British fleet. Sept. 30, Crisis terminated following four-power conference at Munich. Oct. 1, Occupation of Sudeten areas of Czechoslovakia by Germany. Nov. 17, Trade Agreement between Canada and United States signed at Washington.

1939. Mar. 1, Opening of Trans-Canada air-mail service. Mar. 14, Invasion of Czechoslovakia by Germany. Apr. 28, Denunciation of German-Polish non-aggression agreement by Germany. May 17-June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and the United States. May 19, Their Majesties attended Parliament and for the first time in Canadian history Royal Assent was given in person to a Special Bill. Aug. 6, Imperial Airways flying boat *Caribou* arrived at Montreal and officially opened British air-mail service. Aug. 24, Germany and Soviet Russia signed a mutual non-agression treaty. Sept. 1, Poland invaded by Germany. Proclamation issued declaring an apprehended state of war in Canada since Aug. 25. Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. Oct. 2, United States refused to recognize German-Russian partition of Poland. Oct. 4, Disallowance of Alberta Limitations of Actions Act, which was re-enacted after a previous disallowance. Nov. 1, Commencement of daily flights from the Atlantic to the Pacific Coasts by Trans-Canada Air Lines. Dec. 14, Russia expelled from the League of Nations. Dec. 17, First Canadian troops landed in United Kingdom. British Commonwealth Air Training Plan signed at Ottawa by United Kingdom, Canada, New Zealand and Australia.

1940. Jan. 1, First municipal government in the Northwest Territories inaugurated at Yellowknife. Mar. 13, Finland and Russia signed peace treaty, following conclusion of Russo-Finnish War. Apr. 9, Germany invaded Denmark and Norway. Apr. 25, Quebec women granted franchise in provincial elections and to qualify as candidates for the Legislature. May 10, Rt. Hon. Neville Chamberlain resigned and Rt. Hon. Winston Churchill became Prime Minister of the United Kingdom. May 16, Rowell-Sirois Report of Royal Commission on Dominion-Provincial Relations presented to the House of Commons. May 22, Canadian Ministry of Defence for Air set up. June 11, Establishment of Canadian consular service announced. June 22, Armistice signed between France and Germany. July 8, Separate Department of National Defence for Naval Affairs instituted. July 10, B.N.A. Act amended to empower Dominion to enact unemployment insurance legislation. July 29, Unemployment Insurance Bill passed by House of Commons. Aug. 17-18, Conference on defences of the northern half of the Western Hemisphere held at Ogdensburg, N.Y., between the Prime Minister of Canada and the President of the United States; Permanent Joint Board on Defence created. Aug. 19-21, National Registration in Canada.

1941. Jan. 14-15, Dominion-Provincial Conference, called to consider findings of Royal Commission on Dominion-Provincial Relations, terminated owing to opposition of three provinces. Apr. 20, President Roosevelt and Prime Minister King announced agreement regarding the pooling of war materials. Apr. 29, Sinking of S.S. *Nerissa* caused first Canadian military casualties at sea. June 11, Eighth Dominion Census (population, 11,506,655). June 22, Germany attacked Russia. June 30, Proclamation issued calling men 21 to 24 years of age for compulsory military training. July 13, Canada approved Anglo-Soviet treaty. July 26, Canada gave notice of abrogation of commercial treaty with Japan. Aug. 14, Following a meeting at sea, President Roosevelt and Prime Minister Churchill issued a joint declaration setting forth 8 points covering war aims. Dec. 7, Japanese attack on Pearl Harbour. Canada declared state of war with Roumania, Hungary, Finland and Japan. Dec. 8, Britain and United States declared war on Japan. Dec. 11, Germany, Italy and United States formally declared war. Dec. 29-31, Prime Minister Churchill visited Ottawa.

1942. Jan. 2, Signing at Washington of joint declaration by 26 United Nations, binding each to employ its full resources against the Axis Powers. Jan. 5, Joint Board for United Kingdom, United States and Canada, established to purchase and allocate raw materials required for wartime production. Jan. 27, Dominions accorded representation in Empire War Cabinet. July 3, Formation of Canadian joint naval, military and air staff at Washington. Aug. 19, Large-scale combined raid on Dieppe by Canadian troops supported by British, United States and Fighting French troops; Canadian casualties 3,350 out of 5,000 engaged. Nov. 9, Canada broke off relations with Vichy, France.

1943. Jan. 11, Britain and United States signed treaty with China at Chungking, giving up all claims to extra-territorial rights in China. Jan. 14-24, Prime Minister Churchill and President Roosevelt met at Casablanca to draft United Nations' war plans for 1943. May 12, Fighting ended in North Africa. July 9, Beginning of 39-day Sicilian campaign. July 10, British, Canadian and United States forces invaded Sicily. July 23, Trans-Canada Air Lines inaugurated transatlantic service. Aug. 10-24, Sixth Anglo-American War Conference at Quebec city, attended by Prime Minister Churchill, President Roosevelt and Prime Minister King. Aug. 15, Canadian and United States troops occupied Kiska Island in the Aleutians. Aug. 25, Franklin D. Roosevelt visited Ottawa, the first visit by a United States President to Canada's Capital while holding office. Aug. 26, U.K., U.S., U.S.S.R., and Canada accorded limited recognition to French Committee of National Liberation. Sept. 8, Unconditional surrender of Italy. Oct. 10-13, Three-day Empire Air Conference held at London, England. Oct. 19-Nov. 1, Tripartite conference held at Moscow. Nov. 9, Canada signed UNRRA Agreement. Dec. 24, Gen. Dwight D. Eisenhower named Commander-in-Chief of Allied Forces for invasion of Europe. Gen. Sir Harold Alexander named Commander-in-Chief of Allied Armies in Italy.

1944. Jan. 5, Gen. Bernard Montgomery made Commander of the British Armies in France under Gen. Dwight D. Eisenhower. Feb. 17, Compulsory collective bargaining and arbitration of disputes in war industries made effective by a new Dominion labour code. Mar. 16, Establishment of the Wartime Labour Relations Board. Mar. 17, International air transport authority created to regulate air traffic among nations. Mar. 20. Lt.-Gen. H. D. G. Crerar appointed to command the First Canadian Army, replacing Lt.-Gen. A. G. L. McNaughton. Apr. 14, Quebec Province set up a Hydro-Electric Commission. May 1-16, Conference of British Commonwealth countries at London, England. June 4, Rome captured by Allied troops; June 6, Allied invasion of western Europe commenced by landings of troops in France. July 4-24, United Nations monetary and financial conference held at Bretton Woods, N.H., U.S.A. July 23, First Canadian Army commenced operations in Normandy as a separate army. Aug. 1, Family Allowances Act given approval in the House of Commons. Aug. 7, Prime Minister Mackenzie King celebrated 25 years leadership of the Liberal party. Sept. 11-16, Second Quebec Conference attended by Prime Minister Churchill and President Roosevelt. Sept. 16, Main Siegfried Line broken by Allied troops. Sept. 16-25, Second Official Conference of the UNRRA held at Montreal. The United States, Great Britain, Soviet Russia and China announced the establishment, as a result of the Dumbarton Oaks Conference, of an international security organization. The Dominion Government recognized the Provisional Government of the French Republic. Nov. 22, Nineteenth Parliament reconvened in emergency session to consider conscription issue. Nov. 23, Prime Minister King tabled in the House an Order in Council making 16,000 draftees available for service overseas.

1945. Jan. 5, Field Marshal Sir Bernard Montgomery appointed to command all Allied Forces on northern flank of the Ardennes salient in Belgium; Lt.-Gen. Omar Bradley to command Allied Forces on southern flank. Mar. 28, House of Commons approved Canada joining the World Security Conference at San Francisco. Mar. 31, British Commonwealth Air Training Plan brought to a close. Apr. 12, Franklin Delano Roosevelt died suddenly at Warm Springs, Georgia. Apr. 25-June 26, United Nations World Security Conference met at San Francisco to prepare a charter for a general international organization. May 2, The war in Italy and part of Austria ended under terms of unconditional surrender of the German forces signed by the Germans Apr. 29, in Caserta. Moscow announced the fall of Berlin. May 7, Unconditional surrender to Gen. Eisenhower of the German Armed Forces signed at Reims, France, by Col.-Gen. Gustav Jodl, Chief of Staff for Germany. July 4, Canadian military troops entered Berlin as part of the British garrison force. July 17-Aug. 2, Prime Minister Churchill, President

Truman and Premier Stalin met in a Conference at Potsdam, Germany. On July 28, after the British general election, Clement Attlee replaced Mr. Churchill at the Conference. July 18, Halifax rocked by a series of terrific explosions at the Bedford Naval Basin, Burnside, N.S., caused by fire in an ammunition dump. July 26, The Potsdam Declaration which demanded unconditional surrender of Japan issued by the Allied Powers. Aug. 6, First atomic bomb hurled against Hiroshima, Japan. Canada's part in development of atomic bomb revealed. Aug. 6-10, Dominion-Provincial Conference held at Ottawa. Aug. 8, Russia declared war against Japan. Aug. 9, Second atomic bomb dropped on the naval base of Nagasaki. Aug. 11, Japanese propose surrender. Aug. 14, Japan announced acceptance of the terms of Potsdam Declaration. Aug. 21, United States ended all further lend-lease operations. Canadian Mutual Aid continued until Sept. 2. Sept. 1, The Japanese officially laid down their arms. Sept. 17-Nov. 17, The Belsen War Crimes Trials, Lüneberg, Germany. Oct. 16-Nov. 1, The United Nations Food and Agriculture Organization Conference held at Quebec city; 37 nations represented. Nov. 26-29, Dominion-Provincial Conference (adjourned Aug. 10, 1945) renewed discussions on Dominion Government brief. Dec. 17-28, U.K., U.S., and U.S.S.R. announced agreements on the United Nations control of atomic power. Dec. 27, The Bretton-Woods Monetary Agreements signed at Washington by Canada and 27 other United Nations.

1946. Jan. 9-11, General Dwight David Eisenhower, Chief of the United States Army former Commander-in-Chief of the Allied Forces visited Ottawa. Jan. 10-Feb. 15, The First General Assembly of the United Nations was held at London, England. Rt. Hon. Louis St. Laurent, Minister of Justice, chief Canadian delegate. Jan. 23, the Economic and Security Council of United Nations met at London, England; Canada represented by Hon. Paul Martin. Feb. 15-July 15, Royal Commission appointed to enquire into activities of alleged espionage ring in Canada: four reports were later tabled in the House of Commons between Mar. 4 and July 15: several persons mentioned were detained and later brought before the Courts. Mar. 8-18, The International Monetary Conference met at Savannah, Ga., U.S.A.; Canada represented by Louis Rasminsky. Mar. 17, Canada officially bid farewell to the retiring Governor General of Canada, th Earl of Athlone and Princess Alice. Mar. 18, Prime Minister Mackenzie King made a formal statement in the House of Commons on Canada's espionage inquiry. Mar. 25, The United Nations Security Council opened its First Session at New York city. Apr. 12, The new Governor General, the Viscount Alexander of Tunis, and Viscountess Alexander arrived at Ottawa. Apr. 29, The Dominion-Provincial Conference (adjourned Aug. 10, 1945) resumed its sittings, and adjourned five days later without having reached agreement. May. 21-28, The first General Assembly of the Provisional International Civil Aviation Organization met at Montreal; Montreal established as the permanent headquarters. June 1, Census of Prairie Provinces. June 9, The Right Honourable W. L. Mackenzie King established a record for the length of time as Prime Minister of Canada. June 14, The United Nations Atomic Energy Commission opened its first meeting at New York City; Canada represented by Gen. the Hon. A. G. L. McNaughton. July 5, Canadian dollar adjusted to parity with the United States dollar. July 24, Wheat agreement arranged between Great Britain and Canada for a four-year period. July 29-Oct. 15, The Peace Conference met at Luxembourg Palace, Paris, France, to study the texts of the treaty agreements drafted by the Allied Foreign Ministers Council: Prime Minister W. L. Mackenzie King and Hon. Brooke Claxton, Minister of National Health and Welfare, were official delegates from Canada. Aug. 24-Sept. 9, Field Marshal Viscount Montgomery of Alamein, Chief of the Imperial General Staff, visited Canada. Aug. 31, The International War Crimes Trial, held at Nuremberg, Germany, came to an end. Sept. 11-Oct. 3, The United Nations Economic and Security Council met at Lake Success, N.Y. Hon. Paul Martin represented Canada. Oct. 1, The International Military Tribunal announced its verdict against 22 leaders of Nazi Germany on war crimes charges. Oct. 23-Dec. 16, The second General Assembly of the United Nations was held at Flushing Meadows Park, New York City. The Rt. Hon. Louis St. Laurent represented Canada. Nov. 19-Dec. 10, The first general session of the United Nations Educational, Scientific and Cultural Organization, met at Paris, France. The leader of the Canadian delegation was Dr. Victor Dore, Ambassador to Belgium and Minister to Luxembourg.

CHAPTER III.—CONSTITUTION AND GOVERNMENT

CONSPECTUS

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The Government of Canada was established under the provisions of the British North America Act of 1867.* This Statute of the Imperial Parliament, as from time to time amended, forms the written basis of the Constitution of Canada. Subsequent sections of this Chapter describe in some detail the processes by which the Constitution has developed and the institutions, as at present constituted, by which Canada is governed.

The several stages in the development of the status of the Dominion have been authoritatively described in the reports of successive Imperial Conferences including that held at London in 1926, which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as "autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or foreign affairs, though united by a common allegiance to the Crown and freely associated as members of the British Commonwealth of Nations". That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed, as a complementary aspect of nationhood, the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of nations. Membership in the League of Nations, the exercise of treaty-making powers and the establishment of separate diplomatic representation in a number of foreign countries have characterized this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931, which provided for the removal of the remaining limitations on the legislative autonomy of the Dominions.

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* See pp. 40–60 of the 1942 Year Book for text of the original B.N.A. Act and notes regarding amendments and modifications thereto.

PART I.—THE CONSTITUTION AND GENERAL GOVERNMENT OF CANADA

Canada is the largest in area and the most populous of the great self-governing Dominions of the British Empire, which also include the Commonwealth of Australia, the Union of South Africa, the Dominion of New Zealand, Southern Rhodesia and the island colony of Newfoundland (with Labrador). The Dominions enjoy responsible government of the British type, administered by Executive Councils (or Cabinets) acting as advisers to the representative of the Sovereign, themselves responsible to and possessing the confidence of the representatives elected to Parliament by the people, and giving place to other persons more acceptable to Parliament whenever that confidence is shown to have ceased to exist.*

Of these Dominions, Canada, Australia and South Africa, extend over enormous areas of territory, each of the first two approximating Europe in area. Each section of these countries has its own problems and point of view; a local Parliament for each section, as well as the central Parliament for each country, is required. The local Parliaments, established when transportation and communications were more difficult and expensive than at present, were chronologically prior to the central body, to which on its formation they either resigned certain powers, as in the case of Australia, or surrendered their powers with certain specified exceptions, as in Canada and South Africa. Of such local Parliaments, Canada at the present time has nine, Australia six and South Africa four.

Besides the Dominions above enumerated, the great Empire of India in its internal administration has been placed on the road, formerly traversed by the Dominions that are now fully self-governing, towards responsible government. Indeed, the whole evolution of the Empire, throughout all parts that are more than mere fortresses or trading stations, is in the direction of responsible government, to be attained in the dependencies as it has been in what used to be called the Colonies, by the gradual extension of self-government in proportion to the growing capacities of their respective populations. It has been and is the recognized aim of British administrators, by the extension of educational facilities and by just administration, to develop these capacities to the utmost.

Section 1.—The Evolution of the Constitution of Canada Down to Confederation

The process of the development of free government in the Dominion of Canada down to Confederation is given in an article appearing at pp. 34–40 of the 1942 Year Book. Also in an Appendix to that article, pp. 40–60, the text of the British North America Act is presented.

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* In 1934 the Constitution of Newfoundland was temporarily suspended by petition of the Legislature and administration has since been conducted by a Governor acting on the advice of six Commissioners appointed by the Crown—three from Newfoundland and three from the United Kingdom. The Government of the United Kingdom assumed general responsibility for the finances of the Island during the period of reconstruction.

Section 2.—The Development of the Constitution Since Confederation

A specially prepared article bringing the developments since Confederation up to date is published at pp. 41–47 of the 1943–44 Year Book. See also list of Special Articles under "Constitution and Government" at the front of this volume.

PART II.—LEGISLATIVE AND EXECUTIVE AUTHORITIES

Section 1.—Dominion Parliament and Ministry

The Dominion Parliament is composed of the King (represented by the Governor General), the Senate and the House of Commons. As a result of the working out of the democratic principle, the part played by the King's Representative and the Upper Chamber of Parliament in the country's legislation has been, in Canada as in the United Kingdom, a steadily decreasing one, the chief responsibilities involved in legislation being assumed by the House of Commons.

Subsection 1.—The Governor General of Canada

The Governor General is appointed by the King as his representative in Canada, usually for a term of five years, with a salary fixed at £10,000 sterling per annum, which is a charge against the consolidated revenue of the country. The Governor General is bound by the terms of his commission and instructions and can exercise only such authority as is expressly entrusted to him. He acts under the advice of his Ministry, which is responsible to Parliament, and, as the acting head of the Executive, summons, prorogues and dissolves Parliament, and assents to or reserves bills. In the discharge of these and other executive duties, he acts entirely by and with the advice of his Ministry (the Governor General in Council). The royal prerogative of mercy in capital cases, formerly exercised on the Governor General's own judgment and responsibility, is now exercised pursuant to the advice of the Ministry. The practice whereby the Governor General served as the medium of communication between the Canadian and the British Governments was given up in July 1, 1927, and direct communication is now conducted between His Majesty's Government in Canada and His Majesty's Government in the United Kingdom.

1.—Governors General of Canada, 1867-1946

Name	Date of Appointment	Date of Assumption of Office
Viscount Monck, G.C.M.G.	June 1, 1867	July 1, 1867
Lord Lisgar, G.C.M.G.	Dec. 29, 1868	Feb. 2, 1869
The Earl of Dufferin, K.P., K.C.B., G.C.M.G.	May 22, 1872	June 25, 1872
The Marquis of Lorne, K.T., G.C.M.G.	Oct. 5, 1878	Nov. 25, 1878
The Marquis of Lansdowne, G.C.M.G.	Aug. 18, 1883	Oct. 23, 1883
Lord Stanley of Preston, G.C.B.	May 1, 1888	June 11, 1888
The Earl of Aberdeen, K.T., G.C.M.G.	May 22, 1893	Sept. 18, 1893
The Earl of Minto, G.C.M.G.	July 30, 1898	Nov. 12, 1898
Earl Grey, G.C.M.G.	Sept. 26, 1904	Dec. 10, 1904
Field Marshal H.R.H. The Duke of Connaught, K.G.	Mar. 21, 1911	Oct. 13, 1911
The Duke of Devonshire, K. G., G.C.M.G., G.C.V.O.	Aug. 19, 1916	Nov. 11, 1916
General The Lord Byng of Vimy, G.C.B., G.C.M.G., M.V.O.	Aug. 2, 1921	Aug. 11, 1921
Viscount Willingdon of Ratton, G.C.S.I., G.C.I.E., G.B.E.	Aug. 5, 1926	Oct. 2, 1926
The Earl of Bessborough, G.C.M.G.	Feb. 9, 1931	Apr. 4, 1931
Lord Tweedsmuir of Elsfield, G.C.M.G., G.C.V.O., C.H.	Aug. 10, 1935	Nov. 2, 1935
Major-General The Earl of Athlone, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O.	Apr. 3, 1940	June 21, 1940
Field Marshal The Right Honourable Viscount Alexander of Tunis, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., LL.D., A.D.C.	Aug. 1, 1945	Apr. 12, 1946

Subsection 2.—The Ministry

Canada's system of government is based upon that of the British, by which a Cabinet or Ministry (composed of members of the House of Commons or the Senate), is responsible to Parliament. The Cabinet is actually a committee of the King's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the people's representatives. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

2.—Prime Ministers Since Confederation

Note.—A complete list of the members of Dominion Ministries from Confederation to 1913 appears in the 1912 Year Book, pp. 422–429. Later Ministries will be found in the corresponding tables of subsequent editions of the Year Book.

Ministry	Prime Minister	Length of Administration
1	Right Hon. Sir John A. Macdonald	July 1, 1867 - Nov. 6, 1873
2	Hon. Alexander Mackenzie	Nov. 7, 1873 - Oct. 16, 1878
3	Right Hon. Sir John A. Macdonald	Oct. 17, 1878 - June 6, 1891
4	Hon. Sir John J. C. Abbott	June 16, 1891 - Dec. 5, 1892
5	Hon. Sir John S. D. Thompson	Dec. 5, 1892 - Dec. 12, 1894
6	Hon. Sir Mackenzie Bowell	Dec. 21, 1894 - Apr. 27, 1896
7	Right Hon. Sir Charles Tupper	May 1, 1896 - July 8, 1896
8	Right Hon. Sir Wilfrid Laurier	July 11, 1896 - Oct. 6, 1911
9	Right Hon. Sir Robert L. Borden	Oct. 10, 1911 - Oct. 12, 1917 (Conservative Administration)
10	Right Hon. Sir Robert L. Borden	Oct. 12, 1917 - July 10, 1920 (Unionist Administration)
11	Right Hon. Arthur Meighen	July 10, 1920 - Dec 29, 1921 (Unionist—"National Liberal and Conservative Party")
12	Right Hon. William Lyon Mackenzie King	Dec. 29, 1921 - June 28, 1926
13	Right Hon. Arthur Meighen	June 29, 1926 - Sept. 24, 1926
14	Right Hon. William Lyon Mackenzie King	Sept. 25, 1926 - Aug. 6, 1930
15	Right Hon. Richard Bedford Bennett	Aug. 7, 1930 - Oct. 23, 1935
16	Right Hon. William Lyon Mackenzie King	Oct. 23, 1935 - —

3.—Members of the Sixteenth Dominion Ministry as at Jan. 1, 1947

(According to precedence of the Ministers)

Office	Occupant	Date of Appointment[1]
Prime Minister, President of the Privy Council	Right Hon. William Lyon Mackenzie King, C.M.G.	Oct. 23, 1935
Minister of Veterans Affairs	Rt. Hon. Ian Alistair Mackenzie, K.C.	Oct. 23, 1935 Sept.19, 1939 Oct. 13, 1944
Minister of Justice and Attorney General of Canada	Rt. Hon. James Lorimer Ilsley, K.C.	Oct. 23, 1935 July 8, 1940 Dec. 10, 1946
Minister of Reconstruction and Supply	Rt. Hon. Clarence Decatur Howe	Oct. 23, 1935 Apr. 9, 1940 Oct. 13, 1944
Minister of Agriculture	Rt. Hon. James Garfield Gardiner	Oct. 28, 1935
Minister of Trade and Commerce	Hon. James Angus MacKinnon	Jan. 23, 1939 May 10, 1940
Secretary of State of Canada	Hon. Colin William George Gibson, M.C., K.C., V.D.	July 8, 1940 Dec. 12, 1946

For footnote, see end of table, p. 60.

3.—Members of the Sixteenth Dominion Ministry as at Jan. 1, 1947—concluded

Office	Occupant	Date of Appointment[1]
Secretary of State for External Affairs	Rt. Hon. Louis Stephen St. Laurent, K.C.	Dec. 10, 1941 Sept. 4, 1946
Minister of Labour	Hon. Humphrey Mitchell	Dec. 14, 1941
Minister of Public Works	Hon. Alphonse Fournier, K.C.	Oct. 7, 1942
Postmaster General	Hon. Ernest Bertrand, K.C.	Oct. 7, 1942 Aug. 29, 1945
Minister of National Defence	Hon. Brooke Claxton, K.C.	Oct. 13, 1944 Dec. 12, 1946
Minister of Mines and Resources	Hon. James Allison Glen, K.C.	Apr. 18, 1945
Solicitor General of Canada	Hon. Joseph Arthur Jean, K.C.	Apr. 18, 1945
Minister of Transport	Hon. Lionel Chevrier, K.C.	Apr. 18, 1945
Minister of National Health and Welfare	Hon. Paul Joseph James Martin, K.C.	Apr. 18, 1945 Dec. 12, 1946
Minister of Finance	Hon. Douglas Charles Abbott, K.C.	Apr. 18, 1945 Dec. 10, 1946
Minister of National Revenue and Minister of National War Services	Hon. James Joseph McCann, M.D.	Apr. 18, 1945
Minister of Fisheries	Hon. Hedley Francis Gregory Bridges	Aug. 29, 1945
Member of the Administration and Minister without Portfolio	Hon. Wishart McLea Robertson	Aug. 29, 1945

[1] Where more than one date is shown, the first indicates the date of first appointment to the present Cabinet and the last the date of appointment to the portfolio held at present.

4.—Members of the King's Privy Council for Canada, According to Seniority Therein,[1] as at Jan. 1, 1947

Note.—In this list the prefix Rt. Hon. indicates membership in the Imperial Privy Council. Besides those mentioned in this list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, is a Canadian member of the Imperial Privy Council.

Name	Date When Sworn In
The Hon. Sir A. B. Aylesworth	Oct. 16, 1905
The Rt. Hon. W. L. Mackenzie King[2]	June 2, 1909
The Rt. Hon. Sir Thomas White	Oct. 10, 1911
The Rt. Hon. Arthur Meighen	Oct. 2, 1915
The Hon. Esioff Leon Patenaude	Oct. 6, 1915
The Rt. Hon. William Morris Hughes	Feb. 18, 1916
The Hon. Albert Sevigny	Jan. 8, 1917
The Hon. Charles Colquhoun Ballantyne	Oct. 3, 1917
The Hon. James Alexander Calder	Oct. 12, 1917
The Hon. Sydney Chilton Mewburn	Oct. 12, 1917
The Hon. Thomas Alexander Crerar	Oct. 12, 1917
The Hon. Sir Henry Lumley Drayton	Aug. 2, 1919
The Hon. Fleming Blanchard McCurdy	July 13, 1920
The Hon. John Babington Macaulay Baxter	Sept. 21, 1921
The Hon. Henry Herbert Stevens	Sept. 21, 1921
The Rt. Hon. Richard Bedford Viscount Bennett	Oct. 4, 1921
The Hon. Arthur Bliss Copp	Dec. 29, 1921
The Hon. Charles Stewart	Dec. 29, 1921
The Hon. James Murdock	Dec. 29, 1921
The Hon. John Ewan Sinclair	Dec. 30, 1921
The Hon. James Horace King	Feb. 3, 1922
The Hon. Edward James McMurray	Nov. 14, 1923
The Hon. George Newcombe Gordon	Sept. 7, 1925
The Rt. Hon. Charles Vincent Massey	Sept. 16, 1925
The Hon. Walter Edward Foster	Sept. 26, 1925
The Hon. Philippe Roy	Feb. 9, 1926
The Hon. Charles A. Dunning	Mar. 1, 1926
The Hon. George Burpee Jones	July 13, 1926
The Hon. Donald Sutherland	July 13, 1926
The Hon. Raymond Ducharme Morand	July 13, 1926
The Hon. John Alexander Macdonald	July 13, 1926
The Hon. Eugene Paquet	Aug. 23, 1926
The Hon. Lucien Cannon	Sept. 25, 1926
The Hon. William Daum Euler	Sept. 25, 1926
The Hon. Peter Heenan	Sept. 25, 1926
The Hon. James Layton Ralston	Oct. 8, 1926
H.R.H. The Duke of Windsor	Aug. 2, 1927
The Rt. Hon. Earl Baldwin of Bewdley	Aug. 2, 1927
The Hon. Cyrus Macmillan	June 17, 1930
The Rt. Hon. Ian Alistair Mackenzie[3]	June 27, 1930
The Hon. Arthur C. Hardy	July 31, 1930
The Hon. Hugh Alexander Stewart	Aug. 7, 1930
The Hon. Donald Matheson Sutherland	Aug. 7, 1930
The Hon. Alfred Duranleau	Aug. 7, 1930
The Hon. Thomas Gerow Murphy	Aug. 7, 1930
The Hon. W. D. Herridge	June 17, 1931
The Hon. Robert Charles Matthews	Dec. 6, 1933
The Hon. Richard Burpee Hanson	Nov. 17, 1934
The Hon. Grote Stirling	Nov. 17, 1934
The Hon. George Reginald Geary	Aug. 14, 1935
The Hon. James Earl Lawson	Aug. 14, 1935
The Hon. Samuel Gobeil	Aug. 14, 1935
The Hon. Lucien Henri Gendron	Aug. 30, 1935
The Hon. William Earl Rowe	Aug. 30, 1935
The Hon. Onesime Gagnon	Aug. 30, 1935
The Hon. Charles Gavan Power	Oct. 23, 1935

For footnotes, see end of table, p. 61.

4.—Members of the King's Privy Council for Canada, According to Seniority Therein,[1] as at Jan. 1, 1947—concluded

Name	Date When Sworn In	Name	Date When Sworn In
The Rt. Hon. James Lorimer Ilsley[3]	Oct. 23, 1935	The Hon. Alphonse Fournier[3]	Oct. 7, 1942
The Hon. Joseph Enoil Michaud	Oct. 23, 1935	The Hon. Ernest Bertrand[3]	Oct. 7, 1942
The Rt. Hon. Clarence Decatur Howe[3]	Oct. 23, 1935	The Hon. Leo R. LaFleche	Oct. 7, 1942
The Rt. Hon. James Garfield Gardiner[3]	Nov. 4, 1935	The Hon. Brooke Claxton[3]	Oct. 13, 1944
The Hon. James Angus MacKinnon[3]	Jan. 23, 1939	The Hon. A. G. L. McNaughton	Nov. 2, 1944
The Hon. Pierre F. Casgrain	May 10, 1940	The Hon. James Allison Glen[3]	Apr. 18, 1945
The Hon. Colin W. G. Gibson[3]	July 8, 1940	The Hon. Joseph Jean[3]	Apr. 18, 1945
The Hon. William Pate Mulock	July 8, 1940	The Hon. Lionel Chevrier[3]	Apr. 18, 1945
The Hon. Angus L. Macdonald	July 12, 1940	The Hon. Paul Joseph James Martin[3]	Apr. 18, 1945
The Hon. Leighton G. McCarthy	Mar. 4, 1941	The Hon. Douglas Charles Abbott[3]	Apr. 18, 1945
The Hon. Joseph T. Thorson	June 11, 1941	The Hon. James J. McCann[3]	Apr. 18, 1945
The Hon. William F. A. Turgeon	Oct. 8, 1941	The Hon. David Laurence MacLaren	Apr. 18, 1945
The Rt. Hon. Louis Stephen St. Laurent[3]	Dec. 10, 1941	The Hon. Thomas Vien	July 19, 1945
The Hon. Humphrey Mitchell[3]	Dec. 15, 1941	The Hon. Hedley Francis Gregory Bridges[3]	Aug. 30, 1945
The Rt. Hon. Winston S. Churchill	Dec. 29, 1941	The Hon. Wishart McL. Robertson[3]	Sept. 4, 1945

[1] As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in. [2] Ranks as the Prime Minister of Canada. [3] Ranks as a member of the Cabinet.

5.—Duration and Sessions of Dominion Parliaments, 1925-46

Note.—Similar information for the first to the twelfth Parliaments, covering the period from Confederation to 1917, will be found at p. 46 of the 1940 Year Book; and that for the thirteenth and fourteenth Parliaments at p. 53 of the 1945 edition.

Order of Parliament	Session	Date of Opening	Date of Prorogation	Days of Session	Date of Election, Writs Returnable, Dissolution, and Length of Parliament[1, 2]
15th Parliament	1st	Jan. 7, 1926	July 2, 1926	177[6]	Oct. 29, 1925[3] Dec. 7, 1925[4] July 2, 1926[5] 6 m., 26 d.
16th Parliament	1st	Dec. 9, 1926	Apr. 14, 1927	73[7]	Sept. 14, 1926[3] Nov. 2, 1926[4] May 30, 1930[5] 3 y., 7 m., 0 d.
	2nd	Jan. 26, 1928	June 11, 1928	138	
	3rd	Feb. 7, 1929	June 14, 1929	128	
	4th	Feb. 20, 1930	May 30, 1930	100	
17th Parliament	1st	Sept. 8, 1930	Sept. 22, 1930	15	July 28, 1930[3] Aug. 18, 1930[4] Aug. 15, 1935[5] 4 y., 11 m., 29 d.
	2nd	Mar. 12, 1931	Aug. 3, 1931	145	
	3rd	Feb. 4, 1932	May 26, 1932	113	
	4th	Oct. 6, 1932	May 27, 1933	169[8]	
	5th	Jan. 25, 1934	July 3, 1934	160	
	6th	Jan. 17, 1935	July 5, 1935	170	
18th Parliament	1st	Feb. 6, 1936	June 23, 1936	139	Oct. 14, 1935[3] Nov. 9, 1935[4] Jan. 25, 1940[5] 4 y., 3 m., 13 d.
	2nd	Jan. 14, 1937	Apr. 10, 1937	87	
	3rd	Jan. 27, 1938	July 1, 1938	156	
	4th	Jan. 12, 1939	June 3, 1939	143	
	5th	Sept. 7, 1939	Sept. 13, 1939	7	
	6th	Jan. 25, 1940	Jan. 25, 1940	1	
19th Parliament	1st	May 16, 1940	Nov. 5, 1940	85[9]	Mar. 26, 1940[3] Apr. 17, 1940[4] Apr. 16, 1945[5] 5 y.
	2nd	Nov. 7, 1940	Jan. 21, 1942	156[10]	
	3rd	Jan. 22, 1942	Jan. 27, 1943	166[11]	
	4th	Jan. 28, 1943	Jan. 26, 1944	120[12]	
	5th	Jan. 27, 1944	Jan. 31, 1945	217[13]	
	6th	Mar. 19, 1945	Apr. 16, 1945	29	
20th Parliament	1st	Sept. 6, 1945	Dec. 18, 1945	104	June 11, 1945[3] Aug. 9, 1945[4]
	2nd	Mar. 14, 1946	Aug. 31, 1946	118	

[1] The ordinary legal limit of duration for each Parliament is five years. [2] Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive. [3] Date of general election. [4] Writs returnable. [5] Dissolution of Parliament. [6] Including days (13) of adjournment from Mar. 3 to Mar. 15. [7] Not including days (54) of adjournment from Dec. 15 to Feb. 8. [8] Not including days (65) of adjournment from Nov. 25 to Jan. 30. [9] Not including days (89) of adjournment from Aug. 8 to Nov. 4. [10] Not including days (280) of adjournment from Dec. 6, 1940, to Feb. 17, 1941; from June 14, 1941, to Nov. 3, 1941; and from Nov. 14, 1941, to Jan. 21, 1942. [11] Not including days (205) of adjournment from Mar. 27, 1942, to Apr. 20, 1942; from Apr. 23, 1942, to Apr. 28, 1942; and from Aug. 1, 1942, to Jan. 27, 1943. [12] Not including days (186) of adjournment from July 24, 1943, to Jan. 26,1944. [13] Not including days (153) of adjournment from Aug. 14, 1944, to Jan. 31, 1945.

Subsection 3.—The Senate

From an original membership of 72 at Confederation, the Senate through the addition of new provinces and the general growth of the Dominion, now has 96 members, the latest change in representation having been made in 1915. The growth of representation in the Senate is traced at pp. 47-49 of the 1940 edition of the Year Book and is summarized, by provinces, in Table 6.*

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*In addition to a sessional indemnity of $4,000, a Bill introduced in the House of Commons during 1945 makes provision for an allowance of $2,000 per annum to be paid at the end of each calendar year: this allowance is deemed to be taxable income.

6.—Growth of Representation in the Senate, 1867-1946

Province	1867	1870	1871	1873	1882	1887	1892	1903	1905	1915–1946
Ontario	24	24	24	24	24	24	24	24	24	24
Quebec	24	24	24	24	24	24	24	24	24	24
Maritime Provinces	24	24	24	24	24	24	24	24	24	24
Nova Scotia	*12*	*12*	*12*	*10*	*10*	*10*	*10*	*10*	*10*	*10*
New Brunswick	*12*	*12*	*12*	*10*	*10*	*10*	*10*	*10*	*10*	*10*
Prince Edward Island	–	–	–	*4*	*4*	*4*	*4*	*4*	*4*	*4*
Western Provinces	–	2	5	5	6	8	9	11	15	24
Manitoba	–	*2*	*2*	*2*	*3*	*3*	*4*	*4*	*4*	*6*
British Columbia	–	–	*3*	*3*	*3*	*3*	*3*	*3*	*3*	*6*
Saskatchewan Alberta	–	–	–	–	–	*2*	*2*	*4*	*4* *4*	*6* *6*
Totals	**72**	**74**	**77**	**77**	**78**	**80**	**81**	**83**	**87**	**96**

7.—Representation in the Senate, by Provinces, as at Jan. 1, 1947

Speaker..........................The Honourable James H. King, P.C.
Clerk of the Senate..............L. C. Moyer, D.S.O., K.C., B.A.
Leader of the Opposition.........The Honourable John T. Haig
Leader of the Government.......The Honourable Wishart McLea Robertson, P.C.

(Ranked according to seniority, by provinces. All Senators are entitled to the designation "The Honourable".)

Province and Name of Senator	P.O. Address
Prince Edward Island—(4 senators)	
Sinclair, John Ewen, P.C.	Emerald
Macdonald, John A., P.C.	Cardigan
McIntyre, James Peter	Mount Stewart
Robinson, Brewer	Summerside
Nova Scotia—(10 senators—2 vacancies)	
Dennis, William H.	Halifax
Quinn, Felix P.	Bedford
Robicheau, John L. P.	Maxwellton
Duff, William	Lunenburg
MacLennan, Donald	Margaree Forks
Robertson, Wishart McL., P.C.	Bedford
Kinley, John James	Lunenburg
McDonald, John Alexander	Halifax
New Brunswick—(10 senators)	
Bourque, Thomas Jean	Richibucto
McDonald, John Anthony	Shediac
Copp, Arthur Bliss, P.C.	Sackville
Foster, Walter E., P.C.	Saint John
Jones, George B., P.C.	Apohaqui
Leger, Antoine J.	Moncton
Veniot, Clarence Joseph	Bathurst
McLean, Alexander Neil	Saint John
New Brunswick—concluded	
Pirie, Frederick W.	Grand Falls
Burchill, George Percival	South Nelson
Quebec—(24 senators)—	
Beaubien, Charles Philippe	Montreal
Raymond, Donat	Montreal
Ballantyne, Charles C., P.C.	Montreal
Moraud, Lucien	Quebec
Paquet, Eugene, P.C.	Rimouski
Hugessen, Adrian K.	Montreal
Fafard, J. Fernand	L'Islet
Howard, Charles Benjamin	Sherbrooke
Beauregard, Elie	Montreal
David, Athanase	Montreal
St-Pere, Edouard Charles	Montreal
Hushion, William James	Westmount
Gouin, Leon Mercier	Montreal
Vien, Thomas, P.C.	Outremont
DuTremblay, Pamphile Real	Montreal
Bouchard, Telesphore D.	St. Hyacinthe
Daigle, Armand	Montreal
Lesage, Joseph Arthur	Quebec
Vaillancourt, Cyrille	Lévis
Nicol, Jacob	Sherbrooke
Ferland, Charles Edouard	Joliette
Dupuis, Vincent	Longueuil

7.—Representation in the Senate, by Provinces, as at Jan. 1, 1947—concluded

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
Quebec—concluded		**Manitoba**—(6 senators)	
Dessureault, Jean Marie..	Quebec	Molloy, John Patrick......	Winnipeg
Bouffard, Paul H..........	Quebec	Mullins, Henry A.........	Winnipeg
		Haig, John T..............	Winnipeg
Ontario—(24 senators—2 vacancies)		Beaubien, Arthur L.......	St. Jean Baptiste
Donnelly, James J.........	Pinkerton	Crerar, Thomas Alexander, P.C......................	Winnipeg
White, Gerald Verner, C.B.E....................	Pembroke	Howden, John Power......	Norwood Grove
Hardy, Arthur C., P.C....	Brockville		
Aylesworth, Sir Allen Bristol, P.C., K.C.M.G..	Toronto	**Saskatchewan**—(6 senators)	
McGuire, William H.......	Toronto	Calder, James A., P.C......	Regina
Lacasse, Gustave..........	Tecumseh	Marcotte, Arthur..........	Ponteix
Wilson, Cairine R..........	Ottawa	Horner, Ralph B...........	Blaine Lake
Murdock, James, P.C.......	Ottawa	Aseltine, Walter M........	Rosetown
Sutherland, Donald, P.C..	Ingersoll	Stevenson, J. J.............	Regina
Fallis, Iva Campbell.......	Peterborough	Johnston, J. Frederick.....	Bladworth
Lambert, Norman P........	Ottawa		
Hayden, Salter Adrian....	Toronto	**Alberta**—(6 senators)	
Paterson, Norman McLeod.	Fort William	Michener, Edward.........	Calgary
Duffus, Joseph James......	Peterborough	Harmer, William James....	Edmonton
Euler, William Daum, P.C.	Kitchener	Buchanan, William Ashbury	Lethbridge
Davies, William Rupert.....	Kingston	Riley, Daniel E............	High River
Bench, J. Joseph............	St. Catharines	Blais, Aristide.............	Edmonton
Campbell, Gordon Peter...	Toronto	Gershaw, Fred William....	Medicine Hat
Taylor, William Horace...	Scotland		
Bishop, Charles L..........	Ottawa	**British Columbia**—(6 senators—3 vacancies)	
Roebuck, Arthur Wentworth....................	Toronto	King, James H., P.C. (Speaker).................	Victoria
Hurtubise, Joseph Raoul..	Sudbury	Farris, John W. de B.......	Vancouver
		McGeer, Gerald Grattan..	Vancouver

Subsection 4.—The House of Commons

In Section 37 of the original British North America Act of 1867 (30 Vict., c. 3) it was provided that "The House of Commons shall, subject to the provisions of this Act, consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick".* Further, under Section 51, it was enacted that, after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to certain rules set out in the original Act.

Readjustments in Representation.—The representation of the provinces in the Dominion Parliament as at 1867 and the readjustments that took place with the admission of the newer provinces into Confederation and with each Decennial Census up to 1931, are outlined at pp. 57-59 of the 1946 Year Book. The number of representatives of each province elected at each of the twenty general elections since Confederation is given in Table 8.

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* The sessional indemnity of a member of the House of Commons is $4,000. The remuneration of a Cabinet Minister is $10,000 a year (and of the Prime Minister $15,000 a year) in addition to the sessional indemnity. A Cabinet Minister is also entitled to a motor-car allowance of $2,000. The Leader of the Opposition in the House of Commons receives an annual allowance of $10,000 in addition to the sessional indemnity. The Speaker of the House of Commons receives, in addition to his sessional indemnity of $4,000, a salary and motor-car allowance amounting to $7,000, and is also entitled to an allowance of $3,000 in lieu of residence. Members of the House receive $2,000 per annum as an expense allowance, payable at the end of each calendar year. The allowance is not subject to income tax except in the case of Ministers of the Crown and the Leader of the Opposition.

8.—Representation in the House of Commons as at Dominion General Elections 1867-1945

Province or Territory	1867	1872	1874 1878	1882	1887 1891	1896 1900	1904	1908 1911	1917 1921	1925 1926 1930	1935 1940 1945
Ontario	82	88	88	92	92	92	86	86	82	82	82
Quebec	65	65	65	65	65	65	65	65	65	65	65
Nova Scotia	19	21	21	21	21	20	18	18	16	14	12
New Brunswick	15	16	16	16	16	14	13	13	11	11	10
Manitoba	–	4	4	5	5	7	10	10	15	17	17
British Columbia	–	6	6	6	6	6	7	7	13	14	16
Prince Edward Island	–	–	6	6	6	5	4	4	4	4	4
Saskatchewan	–	–	–	–	4	4	10	10	16	21	21
Alberta	–	–	–	–				7	12	16	17
Yukon	–	–	–	–	–	–	1	1	1	1	1
Totals	**181**	**200**	**206**	**211**	**215**	**213**	**214**	**221**	**235**	**245**	**245**

Redistribution for 1941 Postponed.—For the first time since Confederation, the redistribution of parliamentary constituencies required by the B.N.A. Act after each decennial census, has been postponed. A resolution to that effect was presented to Parliament and forwarded to London in the form of an Address to His Majesty the King. His Majesty caused a Bill to be laid before the Parliament of the United Kingdom for the enactment of the provisions of the resolution; this was duly passed through all stages by July 22, 1943. The Bill provides that "notwithstanding anything in the British North America Acts, 1867 to 1940, it shall not be necessary that the representation of the provinces in the House of Commons be readjusted, in consequence of the completion of the decennial census taken in the year One Thousand Nine Hundred and Forty-One, until the first session of the Parliament of Canada commencing after the cessation of hostilities between Canada and the German Reich, the Kingdom of Italy and the Empire of Japan". During the first Session of the Twentieth Parliament, the House of Commons and the Senate of Canada petitioned the Imperial Government, requesting an amendment to Section 51 of the B.N.A. Act. As a result, that section of the Act was repealed and the following substituted therefor:—

"(1) The number of members of the House of Commons shall be Two hundred and fifty-five and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following Rules:

(a) Subject as hereinafter provided, there shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by Two hundred and fifty-four and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder if any, after the said process of division.

(b) If the total number of members assigned to all the provinces pursuant to Rule One is less than Two hundred and fifty-four, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under Rule One commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is Two hundred and fifty-four.

(c) Notwithstanding anything in this section, if upon completion of a computation under Rules One and Two, the number of members to be assigned to a province is less than the number of senators representing the said province, Rules One and Two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.

(d) In the event that Rules One and Two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which Rules One and Two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which Rules One and Two have ceased to apply and the number Two hundred and fifty-four shall be reduced by the number of members assigned to such province pursuant to Rule Three.

(e) Such readjustment shall not take effect until the termination of the then existing parliament.

(2) The Yukon Territory as constituted by C. 41 of the Statutes of Canada, 1901, together with any part of Canada not comprised within a province which may from time to time be included therein by the Parliament of Canada for the purposes of representation in parliament, shall be entitled to one member."

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945.

Speaker............................The Honourable Gaspard Fauteux
Clerk of the House....................A. Beauchesne, K.C., C.M.G., M.A.
Leader of the Opposition.............John Bracken

Note.—This information, except the populations of constituencies, has been supplied by the Chief Electoral Officer, Ottawa, who publishes an official report giving the total vote cast for each candidate. Party affiliations are unofficial. The vote is summarized by provinces for this general election in Table **11**, p. 74. By-elections taking place between the date of this election and Jan. 1, 1947, are indicated by footnotes and are summarized in Table **10**, p. 72. The leaders of the political parties are indicated by asterisks (*).

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
P. E. Island—(4 members)	No.	No.	No.	No.			
Kings	19,415	11,415	9,328	4,655	Thos. Vincent Grant	Montague	Lib.
Prince	34,490	18,839	15,667	7,346	John Watson MacNaught	Summerside	Lib.
Queens	41,142	24,540	38,812[2]	9,570 9,253	J. Lester Douglas W. Chester S. McLure	Charlottetown Charlottetown	Lib. P.C.
Nova Scotia—(12 members)							
Antigonish-Guysborough	26,006	14,647	10,711	6,311	James Ralph Kirk	Antigonish	Lib.
Cape Breton North-Victoria	34,232	19,402	14,362	5,895	Matthew MacLean	Sydney Mines	Lib.
Cape Breton South	81,061	44,025	35,567	16,575	Clarence Gillis	Glace Bay	C.C.F.
Colchester-Hants	52,158	31,497	24,614	11,141	Frank T. Stanfield	Truro	P.C.
Cumberland	39,476	25,090	19,615	9,121	Percy Chapman Black	Amherst	P.C.
Digby-Annapolis-Kings	57,604	36,360	26,188	14,445	Rt. Hon. James Lorimer Ilsley	Kentville	Lib.
Halifax	122,656	85,262	105,618[2]	26,407 23,616	Gordon B. Isnor Wm. Chisholm MacDonald	Halifax Halifax	Lib. Lib.
Inverness-Richmond	34,864	21,072	15,071	8,177	Moses Elijah McGarry	Margaree Forks	Lib.
Pictou	40,789	29,097	22,298	9,774	Henry Byron McCulloch	New Glasgow	Lib.
Queens-Lunenburg	44,970	28,959	19,756	9,693	Robert Henry Winters	Lunenburg	Lib.
Shelburne-Yarmouth-Clare	44,146	27,343	19,154	9,341	Loran Ellis Baker	Yarmouth	Lib.
New Brunswick—(10 members)							
Charlotte	22,728	14,419	11,113	5,486	Andrew Wesley Stuart	St. Andrews	Lib.
Gloucester	49,913	23,414	18,963	11,740	Clovis T. Richard	Bathurst	Lib.
Kent	25,817	12,920	10,652	6,835	Aurel D. Leger	Grandigue	Lib.
Northumberland	38,485	20,365	16,169	8,507	John William Maloney	Newcastle	Lib.

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[1] Successful candidate.

[2] Each voter could vote for two candidates.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
New Brunswick—concluded	No.	No.	No.	No.			
Restigouche-Madawaska	61,251	29,336	22,416	12,200	Benoit Michaud	Campbellton	Lib.
Royal	34,348	20,937	16,974	8,915	Alfred J. Brooks	Sussex	P.C.
St. John-Albert	77,248	51,513	35,175	16,205	Douglas King Hazen	Saint John	P.C.
Victoria-Carleton	38,382	21,215	17,324	9,365	Heber Harold Hatfield	Hartland	P.C.
Westmorland	64,486	40,225	32,843	17,251	Henry Read Emmerson	Dorchester	Lib.
York-Sunbury	44,743	27,917	22,644	10,828	Hon. H. Francis G. Bridges	Fredericton	Lib.
Quebec—(65 members)							
Argenteuil	22,965	13,349	10,972	5,349	George H. Heon	Lachute	Ind.-P.C.
Beauce	55,251	27,299	22,739	9,612	Ludger Dionne	St. Georges de Beauce	Lib.
Beauharnois-Laprairie	48,270	28,802	23,017	10,716	Maxime Raymond	Outremont	B.P.C.
Bellechasse	29,909	15,451	10,599	6,928	Louis Philippe Picard	Quebec	Lib.
Berthier-Maskinongé	39,439	22,205	17,956	10,604	Alderic Laurendeau	St. Gabriel de Brandon	Lib.
Bonaventure	44,066	21,245	15,657	7,885	Bona Arsenault	Quebec	Ind.
Brome-Missisquoi	33,927	20,019	15,566	7,860	Maurice Halle	East Farnham Twp.	Lib.
Chambly-Rouville	47,720	33,259	25,598	12,723	Roch Pinard	Montreal	Lib.
Champlain	42,037	22,329	15,833	8,332	Herve Edgar Brunelle.	Cap-de-la-Madeleine	Lib.
Chapleau	43,416	20,877	14,596	6,225	David Gourd	Amos	Lib.
Charlevoix-Saguenay	67,087	32,705	23,368	12,430	Frederic Dorion	Quebec	Ind.
Châteauguay-Huntingdon	25,369	14,343	11,467	4,770	Donald E. Black	Saint Jean Chrysostome.	Lib.
Chicoutimi	78,881	44,180	33,577	10,796	Paul Edmond Gagnon	Bagotville	Ind.
Compton	34,552	18,179	14,787	8,007	J. Adeodat Blanchette	Chartierville	Lib.
Dorchester	28,795	14,187	11,394	5,149	Leonard D. Tremblay	St. Malachie	Lib.
Drummond-Arthabaska	66,722	36,464	30,040	14,805	Armand Cloutier	Drummondville	Lib.
Gaspe	57,568	28,247	22,606	11,596	J. G. Leopold Langlois.	Ste. Anne des Monts	Lib.
Hull	53,149	32,121	25,559	15,012	Hon. Alphonse Fournier	Hull	Lib.
Joliette-L'Assomption-Montcalm	63,874	37,331	28,534	14,810	Georges Emile Lapalme	Joliette	Lib.
Kamouraska	32,741	16,762	12,295	6,829	Eugene Marquis	Sillery	Lib.
Labelle	38,791	19,814	15,096	7,969	Maurice Lalonde	Mont Laurier	Lib.
Lake St. John-Roberval	64,306	29,853	24,569	9,744	Joseph Alfred Dion	Roberval	Ind.-Lib.
Laval-Two Mountains	33,498	18,220	13,682	6,876	Joseph Romeo Liguori Lacombe.	Ste. Scholastique	Ind.
Lévis	30,411	19,508	14,554	10,098	Maurice Bourget	Lauzon	Ind.-Lib.
Lotbinière	43,738	21,633	16,087	10,122	Hugues Lapointe	Quebec	Ind.-Lib.
Matapedia-Matane	48,184	22,915	17,999	8,500	A. Phileas Cote	Ottawa	Ind.-Lib.
Mégantic-Frontenac	49,568	23,957	19,369	10,057	Joseph Lafontaine.	Thetford Mines.	Lib.
Montmagny-L'Islet	33,394	18,134	12,220	7,327	Jean Lesage	Quebec	Lib.
Nicolet-Yamaska	39,876	21,909	15,730	7,973	Lucien Dubois	Gentilly	Ind.-Lib.
Pontiac	86,320	44,387	32,499	13,325	Wallace Reginald McDonald[2]	Chapeau	Lib.

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[1] Successful candidate. [2] Mr. McDonald died May 2, 1946, and Mr. Real Caoutte (Union des Electeurs) was elected Sept. 16, 1946.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
Quebec—concluded	No.	No.	No.	No.			
Portneuf	41,227	22,196	17,232	8,994	Pierre Gauthier	Deschambault	Lib.
Quebec East	67,559	41,902	30,428	17,965	Hon. Louis Stephen St. Laurent	Quebec	Lib.
Quebec South	39,511	29,297	20,284	14,091	Hon. Charles Gavan Power	Quebec	Lib.
Quebec West and South	49,577	29,028	20,336	10,541	Charles Parent	Quebec	Ind.-Lib.
Quebec-Montmorency	50,600	29,512	22,638	11,561	Wilfrid Lacroix	Quebec	Ind.-Lib.
Richelieu-Verchères	38,869	26,791	17,132	12,873	Hon. P. J. Arthur Cardin[2]	Ste. Anne de Sorel	Ind.
Richmond-Wolfe	39,545	21,083	16,064	8,459	James Patrick Mullins	Bromptonville	Lib.
Rimouski	51,454	26,203	19,772	10,730	Gleason Belzile	Rimouski	Lib.
St. Hyacinthe-Bagot	49,772	29,645	22,041	12,781	Joseph Fontaine	St. Hyacinthe	Lib.
St. Johns-Iberville-Napierville	36,383	21,646	16,926	10,866	Alcide Cote	St. Jean	Lib.
St. Maurice-Laflèche	52,587	30,692	24,309	9,779	Joseph Irene Hamel	Shawinigan Falls	B.P.C.
Shefford	33,387	19,502	15,826	7,413	Marcel Boivin	Granby	Lib.
Sherbrooke	46,574	29,868	23,894	9,552	Maurice Gingues	Sherbrooke	Lib.
Stanstead	27,972	16,750	13,769	5,028	John Thomas Hackett	Stanstead	P.C.
Témiscouata	49,871	23,963	13,410	10,325	Jean-François Pouliot	Rivière-du-Loup	Ind.-Lib.
Terrebonne	47,454	30,723	23,311	15,383	Lionel Bertrand	Ste. Thérèse	Lib.
Three Rivers	52,061	28,849	20,917	6,610	Wilfrid Gariepy	Three Rivers	Ind.
Vaudreuil-Soulanges	22,498	13,060	10,026	6,267	Louis Rene Beaudoin	Hudson	Lib.
Wright	29,773	15,745	11,807	6,460	Joseph Leon Raymond	Maniwaki	Lib.
Montreal Island—							
Cartier	66,086	37,581	26,830	10,413	Fred Rose[3]	Montreal	L.P.P.
Hochelaga	88,199	54,729	36,762	22,444	Raymond Eudes	Montreal	Lib.
Jacques-Cartier	48,580	35,624	26,438	12,640	Elphege Marier	Pointe Claire	Lib.
Laurier	72,680	48,044	32,511	22,520	Hon. Ernest Bertrand	Montreal	Lib.
Maisonneuve-Rosemont	70,253	43,102	30,329	13,556	Sarto Fournier	Montreal	Lib.
Mercier	85,380	48,046	32,351	18,623	Hon. Joseph Arthur Jean	Montreal	Lib.
Mount Royal	84,295	58,858	45,498	20,925	Frederick Primrose Whitman	Montreal	Lib.
Outremont	57,011	39,098	27,020	14,836	Edouard Gabriel Rinfret	Montreal	Lib.
St. Ann	38,756	23,569	16,168	11,007	Thomas Patrick Healy	Montreal	Lib.
St. Antoine-Westmount	53,295	41,256	30,026	13,648	Hon. Douglas Charles Abbott	Westmount	Lib.
St. Denis	85,000	54,007	36,546	21,201	Azellus Denis	Montreal	Lib.
St. Henry	80,384	47,367	32,534	19,137	J. Arsene Bonnier	Montreal	Lib.
St. James	93,851	64,801	41,943	23,970	Rolland Beaudry	Montreal	Lib.
St. Lawrence-St. George	42,120	34,474	20,670	10,301	Hon. Brooke Claxton	Montreal	Lib.
St. Mary	83,444	52,207	34,207	18,237	Gaspard Fauteux	Westmount	Lib.
Verdun	72,050	47,323	35,671	15,943	Paul Emile Cote	Verdun	Lib.
Ontario—(82 members)							
Algoma East	27,182	13,264	10,019	4,855	Thomas Farquhar	Little Current	Lib.
Algoma West	40,777	24,118	17,523	7,476	George E. Nixon	Sault Ste. Marie	Lib.
Brant	22,511	14,728	11,121	5,005	John Alpheus Charlton	Paris	P.C.
Brantford City	34,184	23,608	18,240	8,670	W. Ross MacDonald	Brantford	Lib.

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[1] Successful candidate. [2] Mr. Cardin died Oct. 20, 1946, and Mr. Gerard Cournoyer (Lib.) was elected Dec. 23, 1946. [3] Seat declared vacant, Jan. 30, 1947.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
Ontario—continued							
Bruce	29,253	18,162	14,568	6,933	Andrew E. Robinson	Kincardine	P.C.
Carleton	35,410	24,486	18,152	10,916	G. Russell Boucher	Westboro	P.C.
Cochrane	81,122	37,404	25,605	13,285	Joseph A. Bradette	Cochrane	Lib.
Dufferin-Simcoe	28,940	17,871	13,509	8,539	Hon. William Earle Rowe	Newton Robinson	P.C.
Durham	25,215	16,695	13,485	6,479	Chas. Elwood Stephenson	Port Hope	P.C.
Elgin	46,150	30,031	21,656	11,652	Charles Delmer Coyle	Straffordville	P.C.
Essex East	57,395	37,480	29,031	16,165	Hon. Paul J. J. Martin	South Windsor	Lib.
Essex South	33,815	19,980	16,083	7,875	Stewart Murray Clark	Harrow	Lib.
Essex West	82,146	49,517	32,495	14,270	Donald Ferguson Brown	Windsor	Lib.
Fort William	40,578	25,595	18,906	7,209	Dan McIvor	Westford	Lib.
Frontenac-Addington	27,541	17,299	13,803	7,707	Wilbert Ross Aylesworth	Cataraqui	P.C.
Glengarry	18,732	10,649	8,270	4,934	William B. MacDiarmid[2]	Maxville	Lib.
Grenville-Dundas	32,199	20,641	14,726	9,306	Arza Clair Casselman	Prescott	P.C.
Grey-Bruce	34,830	22,066	17,760	8,912	Walter Edward Harris	Markdale	Lib.
Grey North	34,757	22,600	18,264	9,204	Wilfred Garfield Case	Owen Sound	P.C.
Haldimand	21,854	14,075	10,867	5,844	Mark Cecil Senn	Caledonia	P.C.
Halton	28,515	19,804	15,959	7,344	Hughes Cleaver	Burlington	Lib.
Hamilton East	68,779	44,539	35,417	13,176	Thomas Hambley Ross	Hamilton	Lib.
Hamilton West	59,358	37,403	28,886	11,439	Hon. Colin William George Gibson	Hamilton	Lib.
Hastings-Peterborough	26,894	15,315	11,839	6,876	George Stanley White	Madoc	P.C.
Hastings South	43,580	27,586	21,872	10,546	George Henry Stokes	Belleville	P.C.
Huron North	25,524	16,197	13,012	7,083	Lewis Elston Cardiff	Brussels	P.C.
Huron-Perth	21,539	14,024	11,217	5,645	William Henry Golding	Seaforth	Lib.
Kenora-Rainy River	47,743	23,095	18,180	7,309	William Moore Benidickson	Kenora	Lib.
Kent	53,474	33,047	24,660	12,706	Clayton Earl Desmond	Ridgetown	P.C.
Kingston City	33,261	22,519	18,164	9,175	Thomas Ashmore Kidd	Kingston	P.C.
Lambton-Kent	34,909	21,027	16,498	7,829	Robert James Henderson	Petrolia	P.C.
Lambton West	35,762	25,423	18,988	8,450	Joseph Warner Murphy	Camlachie	P.C.
Lanark	33,143	21,755	17,287	10,350	William Gourlay Blair	Perth	P.C.
Leeds	36,042	22,718	18,976	9,714	George Robert Webb	Gananoque	P.C.
Lincoln	65,066	42,608	33,183	15,911	Norman James Lockhart	St. Catharines	P.C.
London	64,833	47,353	35,615	16,766	Park A. Manross	London	P.C.
Middlesex East	39,511	24,551	18,842	8,808	Harry Oliver White	Glanworth	P.C.
Middlesex West	22,822	14,087	11,506	6,690	Robert McCubbin	Strathroy	Lib.
Muskoka-Ontario	35,285	21,744	16,922	8,531	James Mackerras MacDonnell	Toronto	P.C.
Nipissing	113,866	62,123	46,120	17,416	Leoda Gauthier	Sudbury	Lib.

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[1] Successful candidate. [2] Dr. MacDiarmid having accepted an office of emolument under the Crown, his seat became vacant July 30, 1945, and Rt. Hon. W. L. MacKenzie King (Lib.) was elected Aug. 6, 1945.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
Ontario—concluded	No.	No.	No.	No			
Norfolk	35,611	20,513	15,927	7,505	Theobald Butler Barrett	Port Dover	P.C.
Northumberland	30,143	19,452	15,802	7,996	Robert Earle Drope	Harwood	P.C.
Ontario	52,268	35,256	26,351	12,079	William Edmund Newton Sinclair	Oshawa	Lib.
Ottawa East	62,493	40,988	30,870	15,014	J. T. Richard	Ottawa	Lib.
Ottawa West	94,746	69,826	53,190	24,458	George James McIlraith	Ottawa	Lib.
Oxford	50,974	32,539	24,508	11,916	Kenneth R. Daniel	Ingersoll	P.C.
Parry Sound	30,409	16,577	12,254	5,301	Bucko McDonald	Sundridge	Lib.
Peel	31,539	23,039	17,713	10,357	Gordon Graydon	Brampton	P.C.
Perth	46,373	30,193	23,653	10,961	Albert James Bradshaw	St. Pauls	P.C.
Peterborough West	40,883	26,331	21,808	10,949	Gordon Knapman Fraser	Lakefield	P.C.
Port Arthur	50,833	26,762	20,229	10,055	Rt. Hon. Clarence Decatur Howe	Rockcliffe	Lib.
Prescott	25,261	13,323	10,351	6,623	Elie Oscar Bertrand	L'Original	Lib.
Prince Edward-Lennox	28,134	18,031	13,631	7,907	George James Tustin	Napanee	P.C.
Renfrew North	29,876	18,280	14,354	6,828	Ralph Melville Warren	Eganville	Lib.
Renfrew South	26,874	16,414	13,012	7,182	Hon. James Joseph McCann	Renfrew	Lib.
Russell	27,319	15,977	12,542	5,519	Joseph Omer Gour	Casselman	Lib.
Simcoe East	38,207	22,780	17,719	8,508	Wm. Alfred Robinson	Midland	Lib.
Simcoe North	31,392	20,848	15,708	8,251	Julian Harcourt Ferguson	Collingwood	P.C.
Stormont	40,905	23,624	18,830	11,702	Hon. Lionel Chevrier	Cornwall	Lib.
Timiskaming	51,554	24,109	19,235	7,818	Walter Little	Kirkland Lake	Lib.
Victoria	32,629	19,984	16,287	8,207	Clayton Wesley Hodgson	Haliburton	P.C.
Waterloo North	60,039	40,852	28,580	15,791	Louis Orville Breithaupt	Kitchener	Lib.
Waterloo South	38,681	26,994	19,966	9,201	Karl Homuth	Preston	P.C.
Welland	93,836	61,257	45,311	19,522	Hon. Humphrey Mitchell	Ottawa	Lib.
Wellington North	23,605	14,926	12,050	5,780	Lewis Menary	Grand Valley	P.C.
Wellington South	38,441	24,156	18,893	8,484	Robert W. Gladstone	Guelph	Lib.
Wentworth	78,584	55,096	41,536	15,458	Frank Exton Lennard	Dundas	P.C.
York East	89,158	65,938	43,791	19,908	Robert Henry McGregor	Toronto	P.C.
York North	47,678	33,698	25,623	11,428	John E. Smith	Richmond Hill	Lib.
York South	78,167	58,189	40,806	16,666	Alan Cockeram	Forest Hill	P.C.
York West	69,089	49,042	36,054	14,703	Rodney Adamson	Port Credit	P.C.
City of Toronto—							
Broadview	59,454	41,299	25,735	13,011	Thomas Langton Church	Toronto	P.C.
Danforth	44,212	31,547	22,499	11,401	Joseph Henry Harris	Toronto	P.C.
Davenport	58,685	41,051	27,266	13,110	John R. MacNicol	Toronto	P.C.
Eglinton	72,953	53,036	40,591	21,476	Donald Methuen Fleming	Toronto	P.C.
Greenwood	58,346	41,680	27,836	13,475	Denton Massey	Toronto	P.C.
High Park	55,656	41,785	30,287	12,992	William Alexander MacMaster	Toronto	P.C.
Parkdale	54,123	39,380	27,076	11,588	Herbert A. Bruce[2]	Toronto	P.C.
Rosedale	53,404	37,763	24,432	11,784	Harry R. Jackman	Toronto	P.C.
St. Paul's	62,050	48,969	30,875	12,390	Douglas Gooderham Ross	Toronto	P.C.
Spadina	86,431	58,732	42,293	19,352	David Arnold Croll	Toronto	Lib.
Trinity	62,143	40,514	29,106	8,908	Larry Skey	Toronto	P.C.

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[1] Successful candidate.

[2] Dr. Herbert A. Bruce resigned Apr. 1, 1946, and Mr. Harold Timmins (P.C.) was elected Oct. 21, 1946.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
Manitoba— (17 members)							
Brandon	38,505	23,629	18,447	6,870	James Ewen Matthews	Brandon	Lib.
Churchill	39,042	16,905	13,655	5,226	Ronald Moore	Dauphin	C.C.F.
Dauphin	40,446	21,179	16,534	6,226	Fred S. Zaplitny	Valley River	C.C.F.
Lisgar	30,375	15,330	10,395	4,552	Howard Waldemar Winkler	Morden	Lib.
Macdonald	36,033	18,366	14,713	6,147	William Gilbert Weir	Carman	Lib.
Marquette	35,711	19,641	16,649	6,367	Hon. James Allison Glen	Russell	Lib.
Neepawa	30,035	17,015	14,062	6,497	John Bracken*	Ottawa	P.C.
Portage la Prairie	29,069	15,633	12,330	5,457	Harry Leader[2]	Portage la Prairie	Lib.
Provencher	38,169	17,105	11,551	4,541	Rene Norbert Jutras	Letellier	Lib.
St. Boniface	36,305	22,562	16,622	6,055	Fernand Viau	Winnipeg	Lib.
Selkirk	56,366	29,394	20,996	7,556	William Bryce	Selkirk	C.C.F.
Souris	22,048	12,625	10,725	6,177	James Arthur Ross	Melita	P.C.
Springfield	44,882	22,680	17,080	5,376	John Sylvester Sinnott	Beauséjour	Lib.
Winnipeg North	70,815	47,968	35,377	13,055	Alistair McLeod Stewart	West Kildonan	C.C.F.
Winnipeg North Centre	60,354	43,789	29,539	15,971	Stanley H. Knowles	Winnipeg	C.C.F.
Winnipeg South	54,734	39,791	31,183	11,921	Leslie Alexander Mutch	Winnipeg	Lib.
Winnipeg South Centre	66,855	50,309	38,045	16,389	Ralph Maybank	Fort Garry	Lib.
Saskatchewan— (21 members)							
Assiniboia	33,421	17,758	15,914	6,952	Edward George McCullough	Manor	C.C.F.
Humboldt	43,292	19,658	15,409	7,843	Joseph William Burton	Humboldt	C.C.F.
Kindersley	32,578	15,805	14,011	5,499	Frank Eric Jaenicke	Luseland	C.C.F.
Lake Centre	34,434	18,341	16,639	6,884	John George Diefenbaker	Prince Albert	P.C.
Mackenzie	57,395	25,193	18,221	9,037	Alexander Malcolm Nicholson	Canora	C.C.F.
Maple Creek	34,229	17,486	14,928	6,483	Duncan John McCuaig	Eastend	C.C.F.
Melfort	53,075	24,638	21,162	9,848	Percy Ellis Wright	Tisdale	C.C.F.
Melville	47,111	22,376	20,320	10,095	Rt. Hon. James Garfield Gardiner	Lemberg	Lib.
Moose Jaw	39,106	23,829	20,145	9,831	Wilbert Ross Thatcher	Moose Jaw	C.C.F.
North Battleford	52,329	21,307	16,203	5,049	Frederick W. Townley-Smith	Lashburn	C.C.F.
Prince Albert	47,370	21,856	19,473	7,928	Edward Leroy Bowerman	Shellbrook	C.C.F.
Qu'Appelle	35,276	17,795	16,526	6,146	Gladys Strum	Windthorst	C.C.F.
Regina City	58,245	34,726	32,194	13,799	John Oliver Probe	Regina	C.C.F.
Rosetown-Biggar	32,570	17,410	15,297	8,484	Major James Coldwell*	Ottawa	C.C.F.
Rosthern	39,608	17,964	13,773	6,898	Walter Adam Tucker	Rosthern	Lib.
Saskatoon City	46,222	27,114	23,231	9,217	Robert Ross Knight	Saskatoon	C.C.F.

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[1] Successful candidate. [2] Mr. Harry Leader died May 9, 1946, and Mr. C. C. Miller (P.C.) was elected Oct. 21, 1946.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
Saskatchewan—concluded							
Swift Current	39,703	19,137	16,633	7,813	Thomas J. Bentley	Swift Current	C.C.F.
The Battlefords	44,984	21,808	17,424	7,579	Max Campbell	Neilburg	C.C.F.
Weyburn	38,237	18,877	16,914	8,174	Eric Bowness McKay	Radville	C.C.F.
Wood Mountain	36,528	18,101	16,252	7,772	Hazen Robert Argue	Kayville	C.C.F.
Yorkton	50,279	24,422	18,866	9,158	George Hugh. Castleden	Yorkton	C.C.F.
Alberta—(17 members)							
Acadia	26,308	13,752	10,806	5,556	Victor Quelch	Morrin	S.C.
Athabaska	52,689	23,944	15,032	5,301	Joseph Miville Dechene	Bonnyville	Lib.
Battle River	40,455	19,368	13,217	6,250	Robert Fair	Paradise Valley	S.C.
Bow River	45,369	23,943	17,588	6,569	Charles Edward Johnston	Calgary	S.C.
Calgary East	47,727	34,545	25,340	7,799	Douglas Scott Harkness	Calgary	P.C.
Calgary West	43,744	30,089	23,492	8,872	Arthur Le Roy Smith	Calgary	P.C.
Camrose	43,104	21,259	15,780	7,194	James Alexander Marshall	Bashaw	S.C.
Edmonton East	53,766	38,145	25,337	8,214	Patrick H. Ashby	South Edmonton	S.C.
Edmonton West	48,300	34,981	26,233	8,562	Hon. James A. MacKinnon	Edmonton	Lib.
Jasper-Edson	58,947	27,566	19,838	7,313	Walter Frederick Kuhl	Spruce Grove	S.C.
Lethbridge	47,636	21,921	16,826	7,250	John Horne Blackmore	Cardston	S.C.
Macleod	43,059	21,956	17,259	6,342	Ernest George Hansell	Vulcan	S.C.
Medicine Hat	41,673	21,652	16,525	6,752	Wm. Duncan Wylie	Medicine Hat	S.C.
Peace River	52,427	24,937	18,307	7,319	Solon Earl Low*	Edmonton	S.C.
Red Deer	46,903	25,537	18,820	8,653	Frederick Davis Shaw	Innisfail	S.C.
Vegreville	48,546	21,292	17,079	7,146	Anthony Hlynka	Edmonton	S.C.
Wetaskiwin	55,516	25,543	18,386	7,255	Norman Jaques	Mirror	S.C.
British Columbia—(16 members)							
Cariboo	33,002	17,302	14,307	5,773	William Irvine	Prince George	C.C.F.
Comox-Alberni	37,592	21,509	16,942	7,348	John Lambert Gibson	Ahousat	Ind.-Lib.
Fraser Valley	40,955	22,990	19,266	7,629	George A. Cruickshank	Clayburn	Lib.
Kamloops	27,387	15,892	13,480	4,401	Edmund Davie Fulton	Kamloops	P.C.
Kootenay East	25,559	13,991	12,930	4,712	James Herbert Matthews	Fernie	C.C.F.
Kootenay West	40,088	19,558	16,628	6,123	Herbert Wilfrid Herridge	Trail	People's C.C.F.
Nanaimo	57,689	38,734	31,914	11,181	George Randolph Pearkes	Saanich	P.C.
New Westminster	77,631	54,234	42,255	14,158	Tom Reid	New Westminster	Lib.
Skeena	29,612	14,646	11,195	4,079	Harry Grenfell Archibald	North Vancouver	C.C.F.

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[1] Successful candidate.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twentieth General Election, June 11, 1945—concluded.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member[1]	Name of Member	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
British Columbia—concluded							
Vancouver-Burrard	66,638	50,497	39,798	14,677	Chas. Cecil Ingersoll Merritt	Vancouver	P.C.
Vancouver Centre	65,616	46,808	34,019	9,959	Rt. Hon. Ian Alistair Mackenzie	Ottawa	Lib.
Vancouver East	66,090	48,797	36,393	16,004	Angus MacInnis	Vancouver	C.C.F.
Vancouver North	62,569	46,294	34,961	13,373	James Sinclair	Patricia Bay	Lib.
Vancouver South	77,872	60,649	48,701	25,878	Howard Chas. Green	Vancouver	P.C.
Victoria	57,687	43,799	35,763	11,806	Robert Wellington Mayhew	Victoria	Lib.
Yale	51,874	29,287	24,795	9,625	Hon. Grote Stirling	Kelowna	P.C.
Yukon Territory—(1 member)							
Yukon	4,914	3,445	2,164	849	George Black	Whitehorse	P.C.

[1] Successful candidate.

10.—By-elections from the Date of the General Election, June 11, 1945, to Jan. 1, 1947

Note.—For names of newly-elected members, see footnotes to Table 9.

Province and Electoral Division	Date of Election	Voters on Register	Candidates	Votes Polled	Ratio of Votes Polled to Voters	Successful Candidates	
						Votes Cast for	Ratio to Total Votes Polled
		No.	No.	No.	p.c.	No.	p.c.
Quebec—							
Pontiac	Sept. 16, 1946	49,435	5	32,124	64·98	11,412	35·52
Richelieu-Verchères	Dec. 23, 1946	25,718	3	20,143	78·32	11,984	59·49
Ontario—							
Glengarry	Aug. 6, 1945	10,706	2	4,895	45·72	4,551	92·97
Parkdale	Oct. 21, 1946	41,087	5	23,670	57·61	8,212	34·69
Manitoba—							
Portage la Prairie	Oct. 21, 1946	16,535	3	11,852	71·68	4,805	40·54

Subsection 5.—The Franchise at Dominion Elections*

It was provided by the British North America Act, 1867, that, until otherwise directed by Parliament, elections to the House of Commons should be governed by the electoral laws of the several provinces. The qualifications of electors throughout the Dominion consequently varied but remained the same for both Dominion and provincial elections in any one province until, in 1885, Parliament legislated on the subject by passing the Electoral Franchise Act (47-48 Vict., c. 40). That Act defined a uniform qualification for voters throughout Canada for Dominion purposes, the basis of this new franchise being the ownership or occupation of land of a specified value, although the sons of owners, and particularly farmers' sons, were given the right to vote under special conditions. This Dominion franchise remained in force for thirteen years, but between 1898 and 1920, under the Franchise Act of the former year (59-60 Vict., c. 14), the provincial franchises were again made applicable at Dominion elections. The adoption of the provincial franchise laws for Dominion purposes was temporarily modified by the War-time Elections Act (7-8 Geo. V, c. 39), which admitted certain female relatives of members of the military forces, or of the naval forces, to vote at Dominion elections. Three years later, on the adoption of a New Dominion Elections Act (10-11 Geo. V, c. 46), the provincial franchises were again wholly abandoned and a new electoral qualification was established for Dominion elections throughout Canada. The right to vote was conferred by the new Act upon all British subjects, men and women, of 21 years and upwards, who had resided in Canada for a year, and for two months in the electoral district in which they desired to vote. Women were granted general franchise in Canada in 1918 (8-9 Geo. V, c. 20), and have voted at all Dominion elections held since that date.

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* Revised by Jules Castonguay, Chief Electoral Officer, Ottawa.

Franchise Legislation now in Force.—The right to vote is at present provided for in the Dominion Elections Act, 1938 (2 Geo. VI, c. 46, as amended by 6 Geo. VI, c. 26). The franchise is conferred upon all British subjects, men and women, who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a Dominion election, and ordinarily resident in the electoral district on the date of the issue of the writ for such election. Lists of electors are prepared afresh for use at each Dominion election. Those denied the right to vote are:—

1. Judges appointed by the Governor in Council;
2. The returning officer for each electoral district;
3. Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
4. Indians ordinarily resident on an Indian reservation who did not serve in the First or Second World Wars;
5. Persons restrained of their liberty or management of their property by reason of mental disease;
6. Eskimos, whether born in Canada or elsewhere;
7. Persons who are disqualified by reason of race from voting at an election of a member of the Legislative Assembly of a province in which they are residing, and who did not serve in the First or Second World Wars;
8. Doukhobors, residing in the Province of British Columbia, whether born in Canada or elsewhere;
9. Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices;
10. Inmates of an institution which is maintained by any government or municipality for the housing of the poor, if such persons are disqualified from voting at an election of a member of the Legislative Assembly of the province, and did not serve in the First or Second World Wars;
11. Every Japanese who resided in the Province of British Columbia on July 1, 1938, and on Dec. 7, 1941, who did not serve in the First or Second World Wars.

11.—Voters on the Lists and Votes Polled at the General Elections of 1930, 1935, 1940 and 1945

NOTE.—Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 will be found at p. 82 of the 1926 Year Book and those for the general election of 1926 at p. 66 of the 1945 edition.

Province or Territory	Voters on the Lists				Votes Polled			
	1930	1935	1940	1945	1930	1935	1940	1945
	No.	No.	No.	No.	No.	No.	No.	No.
P. E. Island.......	46,985	53,284	55,339	54,794	59,519[1]	61,641[1]	62,943[1]	63,807[1]
Nova Scotia......	275,762	304,313	335,990	362,754	268,727[2]	275,523[2]	283,428[2]	312,954[2]
New Brunswick...	207,006	229,266	251,986	262,261	186,277[3]	177,485	174,734	204,273
Quebec............	1,351,585[4]	1,575,159	1,799,942	1,956,225	1,029,480[4]	1,162,862	1,189,489	1,433,591
Ontario...........	1,894,624	2,174,188	2,340,344	2,457,937	1,364,960[5]	1,608,244	1,625,439	1,831,806
Manitoba.........	328,089	377,733	425,066	433,921	235,192	284,589	320,860	327,903
Saskatchewan.....	410,400	451,386	481,931	445,601	331,652	347,536	373,376	379,535
Alberta...........	304,475[4]	368,956	423,609	430,430	201,635[4]	241,107	272,418	315,865
British Columbia..	333,326	382,117	472,584	544,987	243,631	292,423	368,103	433,347
Yukon............	1,719	1,805	2,097	3,445	1,408	1,265	1,741	2,164
Totals........	**5,153,971[6]**	**5,918,207**	**6,588,888**	**6,952,355**	**3,922,481[6]**	**4,452,675**	**4,672,531**	**5,305,245**

[1] Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1945, 24,540 voters on the list cast 38,812 votes. [2] Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1945, 85,262 voters on the list cast 105,618 votes. [3] Each voter in the double-member constituency of St. John-Albert, N.B., had two votes; in 1930, 37,067 voters on the list cast 50,121 votes. [4] Not including one electoral district in which the return was by acclamation. [5] Each voter in the double-member constituency of Ottawa, Ont., had two votes; in 1930, 61,535 voters on the list cast 97,369 votes. [6] Not including two electoral districts in which the returns were by acclamation.

According to a special procedure prescribed by the Canadian War Service Voting Regulations, 1944, every Canadian on war service in any of His Majesty's Naval, Military, or Air Forces, man or woman, irrespective of age, and whether stationed within or without Canada, was entitled to vote by ballot for the candidate of his choice at a general election held during the Second World War, and such votes applied to the electoral district in which such war service elector ordinarily resided prior to his enlistment, enrolment, appointment, or call-up on war service.

According to the Canadian Prisoners of War Voting Regulations, 1944, any person eligible to vote under the Canadian War Service Voting Regulations, 1944, who became a prisoner of war, or interned in a neutral country, was entitled to vote by proxy at a general election held in Canada during the Second World War, such proxy being his or her next of kin, as officially recorded at Headquarters, and such vote was cast in the polling division in which such next of kin was entitled to vote as a civilian elector.

Section 2.—Provincial Governments

In each of the provinces, the King is represented by a Lieutenant-Governor appointed by the Governor General in Council and governs with the advice and assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body. The legislatures of all the provinces, with the exception of Quebec, are now unicameral, consisting of a Legislative Assembly elected by the people. In Quebec there is a Legislative Council as well as a Legislative Assembly.

12.—Provinces and Territories of Canada, with Present Areas, Dates of Admission to Confederation, and Legislative Process by which Admission was Effected

Province, Territory or District	Date of Admission or Creation	Legislative Process	Present Area (square miles)		
			Land	Fresh Water	Total
Ontario	July 1, 1867	Act of Imperial Parliament — The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council of May 22, 1867.	363,282	49,300	412,582[1]
Quebec	July 1, 1867		523,860	71,000	594,860[2]
Nova Scotia	July 1, 1867		20,743	325	21,068
New Brunswick	July 1, 1867		27,473	512	27,985
Manitoba	July 15, 1870	Manitoba Act, 1870 (33 Vict., c. 3) and Imperial Order in Council, June 23, 1870	219,723	26,789	246,512[3]
British Columbia	July 20, 1871	Imperial Order in Council, May 16, 1871	359,279	6,976	366,255
P.E. Island	July 1, 1873	Imperial Order in Council, June 26, 1873	2,184	[4]	2,184
Yukon	June 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6)	205,346	1,730	207,076
Saskatchewan	Sept. 1, 1905	Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42)	237,975	13,725	251,700[5]
Alberta	Sept. 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3)	248,800	6,485	255,285[5]
Mackenzie	Jan. 1, 1920	Order in Council, Mar. 16, 1918	493,225	34,265	527,490[6]
Keewatin	Jan. 1, 1920		218,460	9,700	228,160[6]
Franklin	Jan. 1, 1920		541,753	7,500	549,253[6]
		Totals	**3,462,103**	**228,307**	**3,690,410**

[1] The area of Ontario was extended by the Ontario Boundaries Extension Act, 1912 (2 Geo. V, c. 40). [2] Extended by Quebec Boundaries Extension Act, 1912 (2 Geo. V, c. 45), and diminished in consequence of the Award of the Judicial Committee of the British Privy Council (Mar. 1, 1927), whereby some 112,400 square miles of territory, formerly considered as part of Quebec, were assigned to Newfoundland. [3] Extended by Extension of Boundaries of Manitoba Act, 1881, and Manitoba Boundaries Extension Act, 1912 (2 Geo. V, c. 32). [4] Too small to be enumerated. [5] Alberta and Saskatchewan now cover approximately the area formerly comprised in the districts of Assiniboia, Athabaska, Alberta and Saskatchewan, established May 17, 1882, by minute of Canadian P.C., concurred in by Dominion Parliament and Order in Council of Oct. 2, 1895. [6] By Order in Council, June 23, 1870, Rupert's Land, acquired under the Rupert's Land Acts of 1867 and 1868, and the undefined Northern Territories were admitted into the Confederation. The original Northwest Territories, mentioned in the Manitoba Act, 1870, were established by the Northwest Territories Act, 1880 (43 Vict., c. 25), the District of Keewatin having been previously defined by an Act of the Dominion Parliament (39 Vict., c. 21). The provisional Districts of Yukon, Mackenzie, Franklin and Ungava were defined in an Order in Council of Oct. 2, 1895, their boundaries being changed by Order in Council of Dec. 18, 1897. By Order in Council of July 24, 1905, the area of Keewatin, not included in the Northwest Territories, was annexed to the latter from Sept. 1, 1905. By the Extension of Boundaries Act, 1912, Ungava was made a part of the Province of Quebec, and the remaining area of the Northwest Territories south of 60° N. latitude was divided between Manitoba and Ontario.

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947

NOTE.—The Lieutenant-Governor of a province is addressed "His Honour" and is also styled "Honourable" throughout his life. Where a knighthood or other honour was conferred during the term of office, it is shown. Many Lieutenant-Governors were knighted after their term had expired. Legislatures and Ministries from Confederation to 1923 will be found at pp. 75–84 of the 1924 Year Book, and for 1924-34 at pp. 110–118 of the 1938 Year Book. When two or more dates are shown for the appointment of a Minister, the first denotes the original appointment to the Ministry and the second or last to the portfolio held at present.

PRINCE EDWARD ISLAND

LIEUTENANT-GOVERNORS

Name	Date of Commission	Name	Date of Commission
WILLIAM ROBINSON	June 10, 1873	BENJAMIN ROGERS	June 1, 1910
Sir ROBERT HODGSON	July 4, 1874	A. C. MACDONALD	June 3, 1915
THOMAS H. HAVILAND	July 10, 1879	MURDOCK MCKINNON	Sept. 2, 1919
ANDREW ARCHIBALD MACDONALD	July 18, 1884	FRANK R. HEARTZ	Sept. 8, 1924
JEDEDIAH S. CARVELL	Sept. 2, 1889	CHARLES DALTON	Nov. 19, 1930
GEORGE W. HOWLAN	Feb. 21, 1894	GEORGE D. DEBLOIS	Dec. 28, 1933
P. A. MCINTYRE	May 23, 1899	BRADFORD W. LEPAGE	Sept. 11, 1939
D. A. MACKINNON	Oct. 3, 1904	J. A. BERNARD	May 18, 1945

LEGISLATURES, 1934–46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
July 23, 1935	18th General Assembly	5	Sept. 25, 1935	Apr. 21, 1939
May 18, 1939	19th General Assembly	4	Mar. 20, 1940	Aug. 20, 1943
Sept. 15, 1943	20th General Assembly	2	Feb. 15, 1944	[2]

[1] The Ministries from 1934–46 were: 19th Ministry, sworn in Oct. 14, 1933, under the leadership of Hon. W. J. P. MacMillan, M.D., C.M.; 20th Ministry, sworn in Aug. 15, 1935, under the leadership of Hon. W. M. Lea; 21st Ministry, sworn in Jan. 14, 1936, under the leadership of Hon. T. A. Campbell, K.C., 22nd Ministry, sworn in May 11, 1943, under the leadership of Hon. J. Walter Jones, M.A., B.Sc.A. [2] Life of Legislature not yet expired.

TWENTY-SECOND MINISTRY

(Party standing at latest General Election, Sept. 15, 1943: 20 Liberals, 10 Progressive Conservatives.)

Office	Name	Date of Appointment
President of the Executive Council, Premier, Minister of Education, and Minister of Reconstruction	Hon. J. WALTER JONES	May 11, 1943
Attorney and Advocate-General	Hon. FREDERIC ALFRED LARGE, K.C.	May 8, 1944
Provincial Secretary-Treasurer and Minister of Health and Welfare	Hon. WILLIAM HUGHES	May 11, 1943
Minister of Public Works and Highways	Hon. GEORGE H. BARBOUR	May 11, 1943
Minister of Agriculture	Hon. W. F. ALAN STEWART	May 8, 1944
Minister without portfolio	Hon. HORACE WRIGHT	Sept. 14, 1939
Minister without portfolio	Hon. JOHN A. CAMPBELL	Aug. 15, 1935
Minister without portfolio	Hon. MARIN GALLANT	Aug. 15, 1935
Minister without portfolio	Hon. T. WILLIAM L. PROWSE	Oct. 28, 1943

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

NOVA SCOTIA

Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Lt.-Gen. Sir William F. Williams..	July 1, 1867	James D. McGregor............	Oct. 18, 1910
Major-Gen. Sir C. Hastings Doyle	Oct. 18, 1867	David MacKeen................	Oct. 19, 1915
Lt.-Gen. Sir C. Hastings Doyle...	Jan. 31, 1868[1]	MacCallum Grant..............	Nov. 29, 1916
Joseph Howe....................	May 1, 1873	MacCallum Grant..............	Mar. 21, 1922[1]
Sir Adams G. Archibald...........	July 4, 1873	J. Robson Douglas.............	Jan. 12, 1925
Matthew Henry Richey..........	July 4, 1883	James C. Tory..................	Sept. 14, 1925
A. W. McLelan....................	July 9, 1888	Frank Stanfield...............	Nov. 19, 1930
Sir Malachy Bowes Daly.........	July 11, 1890	Walter H. Covert..............	Oct. 5, 1931
Sir Malachy Bowes Daly.........	July 29, 1895[1]	Robert Irwin...................	Apr. 7, 1937
Alfred G. Jones..................	July 26, 1900	Frederick F. Mathers, K.C....	May 31, 1940
Duncan C. Fraser................	Mar. 27, 1906	Lt.-Col.H.Ernest Kendall,M.D.	Nov. 17, 1942

[1] Second term.

Legislatures, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 22, 1933	17th General Assembly......	4	Mar. 1, 1934.............	May 20, 1937
June 29, 1937	18th General Assembly......	4	Mar. 1, 1938.............	Sept. 19, 1941
Oct. 28, 1941	19th General Assembly......	4	Feb. 19, 1942.............	Sept. 12, 1945
Oct. 23, 1945	20th General Assembly......	1[2]	Mar. 14, 1946.............	[2]

[1] The Ministries from 1934-46 were: 12th Ministry, sworn in Sept. 5, 1933, under the leadership of Hon. A. L. Macdonald; 13th Ministry, sworn in July 10, 1940, under the leadership of Hon. A. S. MacMillan; 14th Ministry, sworn in Sept. 8, 1945, under the leadership of Hon. Angus L. Macdonald, K.C. [2] Life of Legislature not yet expired.

Fourteenth Ministry

(Party standing at latest General Election, Oct. 23, 1945: 28 Liberals and 2 Co-operative Commonwealth Federation.)

Note.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of Appointment
Premier and President of Council, Provincial Secretary and Treasurer...................	Hon. Angus L. Macdonald, K.C........	Sept. 8, 1945
Attorney-General, Minister of Lands and Forests, and Minister of Municipal Affairs..	Hon. Josiah H. MacQuarrie, K.C.......	Sept. 5, 1933
Minister of Agriculture and Marketing........	Hon. A. W. Mackenzie..................	Sept. 8, 1945
Minister of Public Health, Minister of Public Welfare and Registrar General.............	Hon. Frank R. Davis, M.D., C.M.......	Sept. 5, 1933
Minister of Mines and Minister of Labour.....	Hon. Lauchlin D. Currie, K.C..........	Feb. 6, 1939
Acting Minister of Highways and Public Works..................................	Hon. Angus L. Macdonald, K.C........	Sept. 18, 1945
Minister of Industry and Publicity...........	Hon. Harold Connolly..................	Feb. 24, 1941
Minister without portfolio...................	Hon. J. Willie Comeau..................	Sept. 5, 1933
Minister without portfolio...................	Hon. Geoffrey Stevens.................	Apr. 4, 1946

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

NEW BRUNSWICK

Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Major-Gen. Sir C. Hastings Doyle	July 1, 1867	Jabez B. Snowball	Jan. 30, 1902
Col. F. P. Harding	Oct. 18, 1867	L. J. Tweedie	Mar. 2, 1907
L. A. Wilmot	July 14, 1868	Josiah Wood	Mar. 6, 1912
Samuel Leonard Tilley	Nov. 5, 1873	G. W. Ganong	June 29, 1916
E. Barron Chandler	July 16, 1878	William Pugsley	Nov. 6, 1917
Robert Duncan Wilmot	Feb. 11, 1880	William F. Todd	Feb. 24, 1923
Sir Samuel Leonard Tilley	Oct. 31, 1885	Major-Gen. Hugh H. McLean	Dec. 11, 1928
John Boyd	Sept. 21, 1893	Col. Murray MacLaren	Feb. 5, 1935
John A. Fraser	Dec. 20, 1893	W. G. Clark	Mar. 5, 1940
A. R. McClelan	Dec. 9, 1896	David Laurence MacLaren	Nov. 1, 1945

Legislatures, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1930	10th General Assembly	5	Feb. 12, 1931	May 22, 1935
June 27, 1935	11th General Assembly	4	Mar. 5, 1936	Oct. 26, 1939
Nov. 20, 1939	12th General Assembly	5	Apr. 4, 1940	July 10, 1944
Aug. 28, 1944	13th General Assembly	[2]	Feb. 20, 1945	[2]

[1] The Ministries from 1934-46 were: 19th Ministry, sworn in June 1, 1933, under the leadership of Hon. L. P. D. Tilley; 20th Ministry, sworn in July 16, 1935, under the leadership of Hon. A. A. Dysart; 21st Ministry, sworn in Mar. 13, 1940, under the leadership of Hon. J. B. McNair.

[2] Life of Legislature not yet expired.

Twenty-First Ministry

(Party standing at latest General Election, Aug. 28, 1944: 36 Liberals and 12 Progressive Conservatives.)

Note.—See headnote under Fourteenth Ministry, Nova Scotia.

Office	Name	Date of Appointment
Premier and Attorney-General	Hon. J. B. McNair, K.C	Mar. 13, 1940
Provincial Secretary-Treasurer and President of Executive Council	Hon. J. J. Hayes Doone	Jan. 10, 1940
Minister of Public Works	Hon. W. S. Anderson	July 16, 1938
Minister of Lands and Mines	Hon. Richard J. Gill	May 16, 1946
Minister of Agriculture	Hon. A. C. Taylor	July 16, 1935
Minister of Health and Social Services	Hon. F. A. McGrand, M.D	Sept. 27, 1944
Minister of Labour	Hon. Samuel E. Mooers	Sept. 27, 1944
Minister of Education and of Federal and Municipal Relations	Hon. C. H. Blakney	Jan. 10, 1940
Minister of Industry and Reconstruction	Hon. J. A. Doucet	Sept. 27, 1944
Minister without portfolio	Hon. J. Gaspard Boucher	Mar. 13, 1940

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

QUEBEC

LIEUTENANT-GOVERNORS

Name	Date of Commission	Name	Date of Commission
Sir. Narcisse F. Belleau	July 1, 1867	Sir François Langelier	May 5, 1911
Sir Narcisse F. Belleau	Jan. 31, 1868[1]	Sir Pierre Evariste Leblanc	Feb. 9, 1915
Rene Edouard Caron	Feb. 11, 1873	Right Hon. Sir Charles Fitzpatrick	Oct. 21, 1918
Luc Letellier de St-Just	Dec. 15, 1876	L. P. Brodeur	Oct. 31, 1923
Theodore Robitaille	July 26, 1879	N. Perodeau	Jan. 8, 1924
L. F. R. Masson	Oct. 4, 1884	Sir Lomer Gouin	Dec. 31, 1928
A. R. Angers	Oct. 24, 1887	H. G. Carroll	Apr. 2, 1929
Sir Joseph A. Chapleau	Dec. 5, 1892	E. L. Patenaude	Apr. 29, 1934
Louis A. Jette	Jan. 20, 1898	Major-Gen. Sir Eugene Fiset	Dec. 30, 1939
Sir Louis A. Jette	Feb. 1, 1903[1]	Major-Gen. Sir Eugene Fiset	June 20, 1945[1]
Sir Charles A. P. Pelletier	Sept. 15, 1908		

[1] Second term.

LEGISLATURES, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 24, 1931	18th General Assembly	4	Nov. 3, 1931	Oct. 30, 1935
Nov. 25, 1935	19th General Assembly	1	Mar. 24, 1936	June 11, 1936
Aug. 17, 1936	20th General Assembly	4	Oct. 7, 1936	Sept. 23, 1939
Oct. 25, 1939	21st General Assembly	5	Feb. 20, 1940	June 29, 1944
Aug. 8, 1944	22nd General Assembly	[2]	Feb. 7, 1945	[2]

[1] The Ministries from 1934-46 were: 16th Ministry, sworn in July 8, 1920, under the leadership of Hon. L. A. Taschereau; 17th Ministry, sworn in June 11, 1936, under the leadership of Hon. A. Godbout; 18th Ministry sworn in Aug. 24, 1936, under the leadership of Hon. M. Duplessis, 19th Ministry, sworn in Nov. 10, 1939, under the leadership of Hon. A. Godbout; 20th Ministry, sworn in Aug. 30, 1944, under the leadership of Hon. Maurice L. Duplessis. [2] Life of Legislature not yet expired.

TWENTIETH MINISTRY

(Party standing at latest General Election, Aug. 8, 1944: 48 Union Nationals, 37 Liberals, 4 Bloc Populaire, 1 Co-operative Commonwealth Federation, and 1 Independent.)

Office	Name	Date of Appointment
Prime Minister, Attorney-General and President of Executive Council	Hon. Maurice L. Duplessis	Aug. 30, 1944
Provincial Treasurer	Hon. Onesime Gagnon	Aug. 30, 1944
Minister of Lands and Forests	Hon. J. S. Bourque	Aug. 30, 1944
Minister of Health and Social Welfare	Hon. J. A. Paquette	Aug. 30, 1944
Minister of Municipal Affairs	Hon. Bona Dussault	Aug. 30, 1944
Minister of Roads	Hon. Antonio Talbot	Aug. 30, 1944
Minister of Public Works	Hon. Romeo Lorrain	Aug. 30, 1944
Minister of Mines	Hon. Jonathan Robinson	Aug. 30, 1944
Minister of Colonization	Hon. Jos. D. Begin	Aug. 30, 1944
Minister of Fisheries	Hon. C. E. Pouliot	Aug. 30, 1944
Minister of Labour	Hon. Antonio Barrette	Aug. 30, 1944
Minister of Trade and Commerce	Hon. Paul Beaulieu	Aug. 30, 1944
Minister of Agriculture	Hon. Laurent Barre	Aug. 30, 1944
Provincial Secretary	Hon. Omer Cote	Aug. 30, 1944
Minister of Social Welfare and of Youth	Hon. Paul Sauve	Sept. 18, 1946
Minister without portfolio	Hon. Antonio Elie	Aug. 30, 1944
Minister without portfolio	Hon. Tancrede Labbe	Aug. 30, 1944
Minister without portfolio	Hon. Marc Trudel	Aug. 30, 1944
Minister without portfolio	Hon. Patrice Tardif	Aug. 30, 1944
Minister without portfolio	Hon. J. T. Larochelle	Aug. 30, 1944
Minister without portfolio	Hon. J. H. Delisle	Aug. 30, 1944

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

ONTARIO

Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Major-Gen. H. W. Stisted	July 1, 1867	Sir John M. Gibson	Sept. 22, 1908
W. P. Howland	July 14, 1868	Lt.-Col. Sir John S. Hendrie	Sept. 26, 1914
John W. Crawford	Nov. 5, 1873	Lionel H. Clarke	Nov. 27, 1919
D. A. Macdonald	May 18, 1875	Col. Henry Cockshutt	Sept. 10, 1921
John Beverly Robinson	June 30, 1880	William Donald Ross	Dec. 20, 1926
Sir Alexander Campbell	Feb. 8, 1887	Col. Herbert Alexander Bruce	Oct. 25, 1932
Sir George A. Kirkpatrick	May 28, 1892	Albert Matthews	Nov. 23, 1937
Sir Oliver Mowat	Nov. 18, 1897	Ray Lawson	Dec. 26, 1946
Sir William Mortimer Clark	Apr. 20, 1903		

Legislatures, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	19th General Assembly	3	Feb. 20, 1935	Apr. 9, 1936
Oct. 6, 1937	20th General Assembly	8	Dec. 1, 1937	June 30, 1943
Aug. 4, 1943	21st General Assembly	2	Feb. 22, 1944	Mar. 24, 1945
June 4, 1945	22nd General Assembly	[2]	July 16, 1945	[2]

[1] The Ministeries from 1934-46 were: 11th Ministry, sworn in July 10, 1934, under the leadership of Hon. M. F. Hepburn; 12th Ministry, sworn in Oct. 21, 1942, under the leadership of Hon. G. D. Conant; 13th Ministry, sworn in May 18, 1943, under the leadership of Hon. H. C. Nixon; 14th Ministry, sworn in Aug. 17, 1943, under the leadership of Hon. George A. Drew. [2] Life of Legislature not yet expired.

Fourteenth Ministry

(Party standing at latest General Election, June 4, 1945: 66 Progressive Conservatives, 8 Co-operative Commonwealth Federation, 11 Liberals, 3 Liberal-Labour and 2 Labour-Progressive.)

Office	Name	Date of Appointment
Prime Minister, President of the Council and Minister of Education	Hon. George A. Drew, K.C.	Aug. 17, 1943
Minister of Agriculture	Hon. Thomas L. Kennedy	Aug. 17, 1943
Provincial Treasurer and Minister of Mines	Hon. Leslie M. Frost, K.C.	Aug. 17, 1943
Attorney-General	Hon. Leslie E. Blackwell, K.C.	Aug. 17, 1943
Minister without portfolio	Hon. George Holmes Challies	Aug. 17, 1943
Minister of Highways and Minister of Public Works	Hon. George H. Doucett	Aug. 17, 1943
Minister of Municipal Affairs and Minister of Reform Institutions	Hon. George H. Dunbar	Aug. 17, 1943
Minister of Labour	Hon. Charles Daley	Aug. 17, 1943
Minister of Planning and Development	Hon. Dana H. Porter, K.C.	May 4, 1944
Minister without portfolio	Hon. William Gourlay Webster	Dec. 13. 1944
Minister of Health	Hon. Russell T. Kelley	Jan. 7, 1946
Minister of Travel and Publicity	Hon. George A. Welsh	Jan. 7, 1946
Minister of Public Welfare	Hon. William A. Goodfellow	Jan. 7, 1946
Secretary and Registrar	Hon. Daniel Roland Michener, K.C.	Apr. 15, 1946
Minister without portfolio	Hon. William Griesinger	Apr. 15, 1946
Minister of Lands and Forests	Hon. Harold Robinson Scott	Nov. 28, 1946

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

MANITOBA

Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
A. G. Archibald	May 20, 1870	Sir Daniel H. McMillan	May 11, 1906[1]
Francis Goodschall Johnson	Apr. 9, 1872	Sir Douglas C. Cameron	Aug. 1, 1911
Alexander Morris	Dec. 2, 1872	Sir James A. M. Aikins	Aug. 3, 1916
Joseph E. Cauchon	Oct. 8, 1877	Sir James A. M. Aikins	Oct. 17, 1921[1]
James C. Aikins	Sept. 29, 1882	Theodore A. Burrows	Oct. 9, 1926
J. C. Schultz	July 1, 1888	J. D. McGregor	Jan. 25, 1929
J. C. Patterson	Sept. 2, 1895	William Johnston Tupper	Dec. 1, 1934
Sir Daniel H. McMillan	Oct. 10, 1900	Roland Fairbairn McWilliams	Nov. 1, 1940

[1] Second term.

Legislatures, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 16, 1932	19th General Assembly	4	Feb. 14, 1933	June 12, 1936
July 27, 1936	20th General Assembly	5	Feb. 18, 1937	Mar. 13, 1941
Apr. 22, 1941	21st General Assembly	5	Dec. 9, 1941	Sept. 8, 1945
Oct. 15, 1945	22nd General Assembly	[2]	Feb. 19, 1946	[2]

[1] The Ministries from 1934-46 were: 12th Ministry, sworn in Aug. 8, 1922, under the leadership of Hon. J. Bracken; 13th Ministry, sworn in Jan. 14, 1943, under the leadership of Hon. Stuart S. Garson, K.C.
[2] Life of Legislature not yet expired.

Thirteenth Ministry

(Party standing at latest General Election, Oct. 15, 1945: 43 Coalition [26 Liberal-Progressives, 15 Progressive Conservatives, 1 Independent, 1 Social Credit], 12 Anti-coalition [10 Co-operative Commonwealth Federation, 1 Independent Anti-Coalition, 1 Labour-Progressive].)

Office	Name	Date of Appointment
Premier, President of the Council and Minister of Dominion-Provincial Relations	Hon. Stuart S. Garson, K.C.	Jan. 14, 1943
Minister of Agriculture and Immigration	Hon. D. L. Campbell	Sept. 21, 1936
Minister of Education	Hon. John C. Dryden	Feb. 5, 1944
Minister of Mines and Natural Resources, Industry and Commerce	Hon. J. S. McDiarmid	May 27, 1932
Provincial Secretary	Hon. C. E. Greenlay	Feb. 14, 1946
Provincial Treasurer	Hon. Stuart S. Garson, K.C.	Sept. 21, 1936 May 15, 1941
Municipal Commissioner	Hon. W. Morton	Nov. 22, 1939
Minister of Telephones and Telegraphs	Hon. W. Morton	Feb. 11, 1944
Minister of Public Works	Hon. E. F. Willis	Nov. 2, 1940 Dec. 19, 1942
Minister of Health and Public Welfare	Hon. Ivan Schultz, K.C.	Feb. 5, 1944
Attorney-General	Hon. J. O. McLenaghen, K.C.	Nov. 2, 1940 May 3, 1941
Minister without portfolio	Hon. S. Marcoux	Sept. 21, 1936
Minister of Labour	Hon. C. Rhodes Smith	Feb. 14, 1946

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

SASKATCHEWAN

Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
A. E. Forget	Aug. 24, 1905	Lt.-Col. H. E. Munroe, O.B.E.	Mar. 31, 1931
George W. Brown	Oct. 5, 1910	A. P. McNab	Sept. 10, 1936
Sir Richard Stuart Lake	Oct. 6, 1915	Thomas Miller	Feb. 27, 1945
H. W. Newlands	Feb. 17, 1921	Reginald J. M. Parker	June 22, 1945
H. W. Newlands	Feb. 22, 1926[1]		

[1] Second term.

Legislatures, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	8th General Assembly	4	Nov. 15, 1934	May 14, 1938
June 8, 1938	9th General Assembly	6	Jan. 19, 1939	May 10, 1944
June 14, 1944	10th General Assembly	2	Oct. 19, 1944	[2]

[1] The Ministries from 1934-46 were: 6th Ministry, sworn in July 19, 1934, under the leadership of Hon. J. G. Gardiner; 7th Ministry, sworn in Nov. 1, 1935, under the leadership of Hon. W. J. Patterson; 8th Ministry, sworn in July 10, 1944, under the leadership of Hon. T. C. Douglas. [2] Life of Legislature not yet expired.

Eighth Ministry

Party standing at latest General Election, June 15, 1944: 47 Co-operative Commonwealth, 5 Liberals and 3 Active Service Voters' Representatives.)

Office	Name	Date of Appointment
Premier, President of Council and Minister of Public Health	Hon. T. C. Douglas	July 10, 1944
Provincial Treasurer	Hon. C. M. Fines	July 10, 1944
Attorney-General	Hon. J. W. Corman	July 10, 1944
Minister of Municipal Affairs	Hon. J. H. Brockelbank	July 10, 1944
Provincial Secretary and Minister of Social Welfare	Hon. O. W. Valleau	July 10, 1944
Minister of Natural Resources and Industrial Development	Hon. J. L. Phelps	July 10, 1944
Minister of Public Works and Minister of Highways and Transport	Hon. J. T. Douglas	July 10, 1944
Minister of Education	Hon. W. Lloyd	July 10, 1944
Minister of Reconstruction and Rehabilitation	Hon. J. H. Sturdy	July 10, 1944
Minister of Co-operation and Co-operative Development	Hon. L. F. McIntosh	July 10, 1944
Minister of Telephones and Telegraphs and Minister of Labour	Hon. C. C. Williams	July 10, 1944
Minister of Agriculture	Hon. I. C. Nollet	Jan. 8, 1946

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

ALBERTA

LIEUTENANT-GOVERNORS

Name	Date of Commission	Name	Date of Commission
GEORGE H. V. BULYEA	Aug. 24, 1905	WILLIAM L. WALSH	Apr. 24, 1931
GEORGE H. V. BULYEA	Oct. 5, 1910[1]	PHILIP C. H. PRIMROSE	Sept. 10, 1936
ROBERT GEORGE BRETT	Oct. 6, 1915	J. C. BOWEN	Mar. 20, 1937
ROBERT GEORGE BRETT	Oct. 20, 1920[1]	J. C. BOWEN	[2]
WILLIAM EGBERT	Oct. 20, 1925		

[1] Second term. [2] Still in office serving second term.

LEGISLATURES, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1930	7th General Assembly	5	Jan. 29, 1931	July 22, 1935
Aug. 22, 1935	8th General Assembly	9	Feb. 6, 1936	Feb. 16, 1940
Mar. 21, 1940	9th General Assembly	4	Feb. 20, 1941	July 7, 1944
Aug. 8, 1944	10th General Assembly	[2]	Feb. 22, 1945	[2]

[1] The Ministries from 1934-46 were: 6th Ministry, sworn in July 10, 1934, under the leadership of Hon. R. G. Reid; 7th Ministry, sworn in Sept. 3, 1935, under the leadership of Hon. Wm. Aberhart; 8th Ministry, sworn in May 31, 1943, under the leadership of Hon. Ernest C. Manning. [2] Life of Legislature not yet expired.

EIGHTH MINISTRY

(Party standing at latest General Election, Aug. 8, 1944: 51 Social Credit, 3 Independents, 2 Co-operative Commonwealth Federation, 1 Soldier Veteran, and 3 Servicemen's Representatives [1 Navy, 1 Army, 1 Air Force] elected January, 1945.)

Office	Name	Date of Appointment
Premier and Provincial Treasurer	Hon. ERNEST C. MANNING	May 31, 1943 Sept. 12, 1944
Attorney-General	Hon. LUCIEN MAYNARD	June 1, 1943
Minister of Education	Hon. R. E. ANSLEY	Sept. 12, 1944
Minister of Lands and Mines	Hon. NATHAN E. TANNER	Jan. 5, 1937
Minister of Public Works and Minister of Railways and Telephones	Hon. WILLIAM A. FALLOW	Sept. 3, 1935
Minister of Health and Minister of Public Welfare	Hon. W. W. CROSS, M.D.	Sept. 3, 1935 Mar. 30, 1944
Provincial Secretary and Minister of Economic Affairs	Hon. ALFRED J. HOOKE	June 1, 1943 April 20, 1945
Minister of Municipal Affairs and Minister of Trade and Industry	Hon. C. E. GERHART	June 1, 1943 Sept. 12, 1944
Minister of Agriculture	Hon. DUNCAN BRUCE MACMILLAN	Dec. 3, 1940

BRITISH COLUMBIA

LIEUTENANT-GOVERNORS

Name	Date of Commission	Name	Date of Commission
J. W. TRUTCH	July 5, 1871	Sir FRANK S. BARNARD	Dec. 5, 1914
ALBERT NORTON RICHARDS	June 27, 1876	Col. EDWARD G. PRIOR	Dec. 9, 1919
CLEMENT F. CORNWALL	June 21, 1881	WALTER C. NICHOL	Dec. 24, 1920
HUGH NELSON	Feb. 8, 1887	R. RANDOLPH BRUCE	Jan. 21, 1926
EDGAR DEWDNEY	Nov. 1, 1892	J. W. FORDHAM JOHNSON	July 18, 1931
THOMAS R. MCINNES	Nov. 18, 1897	ERIC W. HAMBER	Apr. 29, 1936
Sir HENRI G. JOLY DE LOTBINIERE	June 21, 1900	Lt.-Col. WILLIAM C. WOODWARD	Aug. 29, 1941
JAMES DUNSMUIR	May 11, 1906	Col. the Hon. CHARLES ARTHUR BANKS, C.M.G.	Oct. 1, 1946
T. W. PATERSON	Dec. 3, 1909		

13.—Lieutenant-Governors of Provinces and Territories, 1867-1946, Legislatures and Prime Ministers, 1934-46, and Present Ministries as at Jan. 1, 1947—continued

BRITISH COLUMBIA—concluded

LEGISLATURES, 1934-46[1]

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Nov. 2, 1933	18th General Assembly	4	Feb. 20, 1934	Apr. 15, 1937
June 1, 1937	19th General Assembly	5	Oct. 26, 1937	July 22, 1941
Oct. 21, 1941	20th General Assembly	4	Dec. 4, 1941	Aug. 31, 1945
Oct. 25, 1945	21st General Assembly	[2]	Feb. 21, 1946	[2]

[1] The Ministries from 1934-46 were: 22nd Ministry sworn in Nov. 15, 1933, under the leadership of Hon. T. D. Pattullo; 23rd Ministry, sworn in Dec. 10, 1941, under the leadership of Hon. John Hart.
[2] Life of Legislature not yet expired.

TWENTY-THIRD MINISTRY

(Party standing at latest General Election, Oct. 25, 1945: 37 Coalition [26 Liberals, 11 Conservatives], 10 Co-operative Commonwealth Federation and 1 Labour.)

Office	Name	Date of Appointment
Premier and President of the Executive Council	Hon. JOHN HART	Dec. 9, 1941
Provincial Secretary, Minister of Labour	Hon. GEORGE S. PEARSON	Dec. 10, 1941
Attorney-General	Hon. GORDON SYLVESTER WISMER, K.C.	Apr. 4, 1946
Minister of Lands and Forests	Hon. EDWARD TOURTELLOTTE KENNEY	Nov. 8, 1944
Minister of Finance	Hon. HERBERT ANSCOMB	Apr. 12, 1946
Minister of Agriculture	Hon. FRANK PUTNAM	Nov. 21, 1945
Minister of Mines and Minister of Municipal Affairs	Hon. RODERICK CHARLES MACDONALD	Apr. 12, 1946
Minister of Public Works	Hon. ERNEST C. CARSON	Apr. 12, 1946
Minister of Railways and Minister of Trade and Industry	Hon. LESLIE HARVEY EYRES	Apr. 12, 1946
Minister of Education	Hon. GEORGE M. WEIR	Nov. 19, 1945
Minister of Health and Welfare	Hon. GEORGE S. PEARSON	Oct. 1, 1946
Commissioner of Fisheries	Hon. LESLIE HARVEY EYRES	Oct. 1, 1946

YUKON TERRITORY

NOTE.—The Yukon, formerly a District of the Northwest Territories, was made a separate Territory in 1898. The Yukon Act provides for a local government composed of a Chief Executive, styled Commissioner but since classified as Controller; also an elective Legislative Council of three members having a three-year tenure of office. The Yukon Territorial Council performs much the same functions as do the Provincial Governments. The Controller functions in lieu of the Provincial Cabinet and the three members of the Territorial Council function in lieu of the Provincial Parliament. The seat of local government is at Dawson, but the Controller acts under instructions from the Governor General in Council or the Minister of Mines and Resources at Ottawa. The Commissioners who held office previous to the present are listed at p. 78 of the 1946 Year Book.

CONTROLLER

JOHN EDWARD GIBBEN (Acting)	July 25, 1946

TERRITORIAL COUNCIL

(Three members elected 1944, for 3 years)

Dawson District	JOHN R. FRASER, Dawson
Whitehorse District	ALEXANDER A. SMITH, Whitehorse
Mayo District	ERNEST J. CORP, Keno Hill

THE NORTHWEST TERRITORIES

NOTE.—In 1888, the Districts of Alberta, Assiniboia, Athabaska, and Saskatchewan, then called the Northwest Territories, with their capital at Regina, were given responsible government, and the former Northwest Council was replaced by the Northwest Legislature, which existed until Aug. 31, 1905. When the area included in these Districts was formed into the Provinces of Alberta and Saskatchewan on Sept. 1, 1905, these provinces were given systems of government similar to the other provinces of the Dominion. The prevailing form of government for the remaining part of the Territories was discontinued in 1905 and

THE NORTHWEST TERRITORIES—concluded

the office of Lieutenant-Governor abolished. In its place, government was vested in a Commissioner and a Council, now composed of six members, one of whom may be appointed Deputy Commissioner. The administration of the various Acts, Ordinances, and Regulations pertaining to the Northwest Territories is supervised by the Director of the Lands, Parks and Forests Branch, Department of Mines and Resources, who is also Deputy Commissioner. The seat of government is at Ottawa. The Lieutenant-Governors from Confederation to 1905 are listed at p. 73 of the 1945 Year Book.

TERRITORIAL COUNCIL

(Appointed by the Governor General in Council)

Commissioner—HUGH L. KEENLEYSIDE.
Deputy Commissioner—ROY ALEXANDER GIBSON.
Members of the Council—AUSTIN LOUIS CUMMING; KENNETH ROBINSON DALY; ROBERT ALEXANDER HOEY; STUART TAYLOR WOOD.
Secretary—JAMES GOLDWIN WRIGHT.

Section 3.—Dominion-Provincial Relations*

The genesis of the current phase of Dominion-Provincial relations was the Dominion-Provincial Conference of December, 1936. At that time drought and depressed prices had led the Government of Alberta into partial default on its outstanding debt, and the Governments of Saskatchewan and Manitoba made clear at the Conference that in default of assistance they would be forced to take similar action. On the invitation of the Dominion Minister of Finance and the Premiers of the three Prairie Provinces, the Bank of Canada undertook an examination of their financial positions. The Bank's report on Manitoba was made public on Feb. 15, on Saskatchewan on Mar. 15, and on Alberta on Apr. 7, 1937. The Bank Report recommended certain interim financial assistance from the Dominion Government but concluded that no solution seemed possible other than that which might be provided by a complete inquiry into the financial powers and responsibilities of Canadian governing bodies at all levels. In addition to the special difficulties of the Prairie Provinces, the burden of relief had weakened the financial position of all provincial and municipal governments, and had finally proved completely beyond their capacity to bear in its entirety.

Royal Commission on Dominion-Provincial Relations.—By P.C. 1908 on Aug. 14, 1937, the Royal Commission on Dominion-Provincial Relations was established. The Chairman was the Hon. N. W. Rowell, Chief Justice of Ontario, and the members were the Hon. Thibaudeau Rinfret, Justice of the Supreme Court of Canada, Dr. J. W. Dafoe of Winnipeg, Dr. R. A. MacKay of Dalhousie University, and Professor H. F. Angus of the University of British Columbia. Subsequently the Hon. Justice Rinfret was compelled to retire owing to ill health and was replaced by Dr. Joseph Sirois of Quebec. Illness also forced the resignation of Chief Justice Rowell in 1938 and Dr. Sirois was appointed Chairman to succeed him. The Commission has consequently been generally known as the Rowell-Sirois or Sirois Commission. The report, submitted on May 3, 1940, recommended important financial and jurisdictional changes,† of which the chief were: (1) exclusive Dominion jurisdiction in income tax, corporation tax and succession duty fields; (2) acceptance by the Dominion of responsibility for relief to able-bodied unemployed; (3) assumption by the Dominion of net provincial debt charges; and (4) payment by the Dominion of national adjustment grants designed to put each Provincial Government in a position to provide average standards of services without imposing higher than average rates of taxation.

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* Prepared by D. A. Skelton, Research Adviser, Bank of Canada, Ottawa.

† See Canada Year Book 1940, pp. 1157-1163.

Dominion-Provincial Conference, January, 1941.—A Dominion-Provincial Conference was called in January, 1941, to consider the Royal Commission Report. The Conference broke down on the second day in the face of opposition from the Premiers of Ontario, British Columbia and Alberta.

Wartime Tax Agreements.—Later in the year the Dominion Government proposed that, in order to meet the exigencies of the War, the Provincial Governments (and their municipalities) should suspend imposition of income taxes and corporation taxes for the duration of the War and one year after, and be reimbursed by the Dominion on the basis of either the 1940 revenues of the particular Province from these sources, or the amount of that Province's net debt service less succession duty collections in 1940. There were also some relatively small fiscal-need subsidies proposed and an offer to guarantee provincial gasoline tax revenues at the 1940 level. Agreements were negotiated with all the Provincial Governments in 1941 and the necessary legislation was passed in the spring of 1942. Under these agreements, which brought into effect an important part of the Sirois Report recommendations for the duration of the War, the Dominion was given a free hand in the income and corporation tax fields and developed these sources of revenue very substantially as an aid both in financing the War and in combating inflation. The other chief problems with which the Sirois Report dealt, such as provincial debts and unemployment and agricultural relief, were for the time being thrust into the background.

Dominion-Provincial Conference, 1945-46.—Since the Wartime Tax Agreements were of temporary duration only and since a number of the pre-war financial and constitutional problems promised to arise in even more aggravated form upon the termination of these agreements, the Dominion formulated proposals for a new agreement. These proposals were submitted at a Dominion-Provincial Conference called in August, 1945. They were broader in scope than the Sirois Report recommendations, primary stress being placed on the maintenance of a high and stable level of employment and income. To this end, not only important fiscal changes but also greatly developed public investment and social security policies were suggested. The agreement was proposed initially for a three-year period and would involve no constitutional changes, although there was one recommendation for a constitutional amendment to provide for delegation of powers from the Dominion Government to a Provincial Government or vice versa whenever desired by both Governments.

The fiscal proposals were that the Provinces should withdraw from the personal income tax, corporation tax and succession duty fields in return for annual subsidies which would not fall below a guaranteed minimum and which would rise proportionally with population and increases in per capita gross national product. The amount of the subsidies proposed was approximately 50 p.c. above provincial receipts under the Wartime Tax Agreements.

The public investment proposals outlined a substantial expansion in the Dominion program for natural resource development, conservation, and public works, and also a large increase in Dominion assistance to provincial services and construction projects either through joint participation or by grants-in-aid. Particular emphasis was put upon, and tangible encouragement offered to, the advance planning of works and, in so far as practicable, the timing of public investment expenditures with a view to helping to stabilize employment and offset fluctuations in the business cycle.

The social security proposals were among the most extensive undertaken by any country. Family allowances had already been put into effect in 1945. The Dominion now proposed in addition, to pay a $30 a month old-age pension without a means test to everyone 70 years of age or over; to contribute 50 p.c. to provincially administered old-age assistance under a means test for people from 65 to 69; to make grants to the Provincial Governments for general preventive public-health work and for the prevention and cure of tuberculosis, mental diseases, venereal disease, and other specific ills; to contribute approximately 60 p.c. of the cost of provincially administered health insurance schemes; to make low-interest loans for hospital construction; to provide assistance for all unemployed able and willing to work, not covered by unemployment insurance, at the scale of approximately 85 p.c. of the unemployment insurance benefits; to provide and assist in the provision of greatly expanded vocational training and other rehabilitation services to improve employability.

The Dominion-Provincial Conference in August adjourned, after five days' discussion, to consider the proposals and any alternatives or amendments to them. A Co-ordinating Committee under the chairmanship of the Prime Minister of Canada, consisting of three Dominion Ministers and the nine Provincial Premiers, was established and subsequently held three meetings in camera from Nov. 26 to Nov. 30, 1945, from Jan. 28 to Feb. 1, 1946, and on Apr. 25 and 26, 1946. An Economic Committee, consisting largely of technical representatives of the different Governments, was also established and met for three weeks in December, 1945, and January, 1946, for the exchange of information and the development and clarification of the proposals in detail. The Economic Committee under its terms of reference made no collective report, but its members reported to their respective Governments. The Co-ordinating Committee reported back to a full plenary session of the Dominion-Provincial Conference when it reassembled on Apr. 29, 1946.

The Dominion put forward a number of modifications that had been made in its original proposals in the light of discussions in the Co-ordinating Committee.* The most important of these were: an increase in the guaranteed minimum annual subsidy from $12 per capita to $15; an optional provision in connection with succession duties which would enable any province that wished to continue levying succession duties subject to an adjustment in its annual subsidy and with provision for offsetting credits to the taxpayer; and an expression of willingness by the Dominion to withdraw from certain tax fields as requested by some of the Provincial Governments in return for an adequate financial equivalent.

By this time submissions in relation to the Dominion proposals had been made by all the Provincial Governments. Most of these submissions accepted the Dominion proposals in principle but contained a number of suggested modifications. The submission of the Government of Ontario suggested an alternative approach and differed in principle on some important issues. After five full days of discussion it was found that too wide a gap existed to enable an agreement to be reached at that time and the Conference adjourned *sine die*. The Dominion advised that it would have to proceed with the formulation of its Budget policies in the light of these circumstances.

The Budget Proposals of June, 1946.—The Budget of June 27, 1946, included proposals for a tax agreement which could be entered into by any individual province. In compliance with the Wartime Tax Agreements, the Dominion undertook to reduce the standard corporation income tax from 40 p.c. to 30 p.c. and also to reduce personal income taxes for 1947. The Dominion would also give a tax credit of the amount of personal income tax paid any province up to 5 p.c. of the tax payable to the Dominion. The Dominion proposed to double its succession duty tax, but to provide a credit against this tax of the amount of succession duties paid to a Provincial Government up to 50 p.c. of the Dominion tax. If a province was prepared to agree to withdraw from income tax, corporation tax and succession duty fields for five years, the Dominion would undertake to pay the annual per capita subsidy under the terms proposed at the Conference. Agreeing provinces would be required to levy a 5 p.c. tax on net corporate income within the province to be collected by the Dominion, and the proceeds of this tax would be deducted from the annual subsidy.

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* Further discussion of these proposals is given in Chapter XXVIII on Post-War Reconstruction.

The objective of the Budget proposals was to secure tax agreements with the provinces, but the proposals were designed to enable a Province which might prefer to continue its own taxation to do so without unduly penalizing its taxpayers.

Dominion-Provincial Tax Agreements.—Following the Budget Address, several provinces entered into negotiations with the Dominion. During the course of these negotiations the formula on which Dominion payments to the provinces would be based was expanded. Three alternatives were offered: (1) the formula as proposed in the Budget Speech, with increases based on increases in gross national production and population applying to the $15 per capita minimum or, in the case of British Columbia and Prince Edward Island, to the lump sum minimum which they had elected; (2) a combination of $12·75 per capita of 1942 population, plus 50 p.c. of provincial income and corporation income tax receipts in 1940, plus the statutory subsidies, increased according to increases in gross national production and population; or (3) $15 per capita of 1942 population plus the statutory subsidies, increased according to increases in gross national production and population.

If all provinces should conclude agreements with the Dominion, and assuming that each took the option most favourable to it, the guaranteed minimum annual payment to each province and the amount payable in 1947 as estimated at the beginning of that year, as compared with the total receipts under the Wartime Tax Agreements and from succession duties and statutory subsidies, would be as follows:—

	Proposed Agreement		*Total Annual Receipts during Wartime from Wartime Tax Agreements, Succession Duties, and Statutory Subsidies*
	Guaranteed Minimum	*Estimated 1947*	
	$'000,000	$'000,000	$'000,000
Prince Edward Island	2·1	2·3	1·2
Nova Scotia	10·9	12·1	4·2
New Brunswick	8·8	9·4	4·8
Quebec	56·4	63·0	31·3
Ontario	67·2	74·0	44·3
Manitoba	13·5	14·2	8·0
Saskatchewan	15·2	15·7	8·2
Alberta	14·0	14·8	8·2
British Columbia	18·1	21·4	14·3
TOTALS	206·2	226·9	124·5

The Dominion Government also undertook to withdraw, on Mar. 31, 1947, its wartime tax on gasoline of 3 cents a gallon, leaving this field of taxation, which was yielding the Dominion approximately $35,000,000 annually, entirely to the provinces.

Six provinces—Prince Edward Island, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia—have agreed in principle to rent their corporation tax, income tax and succession duty fields to the Dominion for five years in exchange for the payments as shown above. Legislation will be introduced in the Dominion and Provincial Houses in the spring of 1947 in order to implement these agreements. On the other hand, the Governments of Ontario and Quebec announced in March, 1947, their budget proposals for the fiscal year 1947-48. These proposals included a 7 p.c. corporation tax, the maintenance of existing succession duties, and no personal income tax. At the time of its Budget announcement, the Government of Ontario made it clear that it would like to see the Dominion-Provincial Conference reconvened in the hope of arriving at a general tax agreement. The Dominion Government has committed itself to holding a Dominion-Provincial Conference to deal with the social security and public investment proposals of the 1945 Conference as soon as tax agreements are concluded with all provinces.

PART III.—CANADA'S EXTERNAL RELATIONS

Section 1.—Canada's Growth in External Status

The evolution of Canada in its external relations is reflected in the growth of its Department of External Affairs. A review of the organization and development of that Department is given at pp. 74-79 of the 1945 edition of the Year Book.

Section 2.—Canada and the United Nations

A special article on Canada and the United Nations is given at pp. 82-86 of the 1946 edition of the Year Book.

PART IV.—DIPLOMATIC REPRESENTATION*

Section 1.—Representatives of Canada in Other Countries

Subsection 1.—High Commissioners Within the British Commonwealth of Nations

United Kingdom.—The High Commissioner for Canada in the United Kingdom: Mr. N. A. Robertson, appointed Sept. 17, 1946. Address: Canada House, Trafalgar Square, London, S.W. 1.

Previous High Commissioners:—

Sir Alexander Galt, 1880-83
Sir Charles Tupper, 1884-87, 1888-96
Lord Strathcona and Mount Royal, 1896-1914
Sir George Perley, 1917-22 (Acting High Commissioner, 1914-17)
The Hon. P. C. Larkin, 1922-30
The Hon. G. Howard Ferguson, 1930-35
The Rt. Hon. Charles Vincent Massey, 1935-46.

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* Revised by the Department of External Affairs, Ottawa, as at Mar. 15, 1947. An annual review of the organization and activities of Canadian Government representation abroad is contained in the Report of the Department of External Affairs, which may be obtained from the King's Printer, Price 10 cents.

Australia.—The High Commissioner for Canada in Australia: Mr. Kenneth A. Greene, appointed March, 1947. Address: State Circle, Canberra.

Previous High Commissioners:—

Mr. Charles J. Burchell, 1939-41
Major-General Victor Odlum, 1941-42
The Hon. Thomas C. Davis, 1942-46.

New Zealand.—The High Commissioner for Canada in New Zealand: Dr. A. Rive, appointed on June 1, 1946. Address: Government Life Insurance Building, Customs Quay, Wellington.

Previous High Commissioner:—

Dr. W. A. Riddell, 1940-46.

South Africa.—The High Commissioner for Canada in the Union of South Africa: Mr. E. D. McGreer, appointed Nov. 6, 1946. Address: Barclays Bank Building, 206 Church Street West, Pretoria.

Previous High Commissioners:—

Dr. Henry Laureys, 1940-44
Mr. Charles J. Burchell, 1944-45
Mr. J. C. Macgillivray, 1945-46 (Acting).

Ireland.—The High Commissioner for Canada in Ireland: The Hon. W. F. A. Turgeon, appointed Nov. 6, 1946. Address: 92 Merrian Square, West, Dublin.

Previous High Commissioners:—

Mr. John H. Kelly, 1940-41
Mr. J. D. Kearney, 1941-45
Mr. Merchant M. Mahoney, 1945-46.

Newfoundland.—The High Commissioner for Canada in Newfoundland: Mr. J. Scott Macdonald, appointed May 4, 1944. Address: Circular Road, St. John's.

Previous High Commissioner:—

Mr. Charles J. Burchell, 1941-44.

India.—The High Commissioner for Canada in India: Mr. J. D. Kearney, appointed Dec. 23, 1946. Address: New Delhi.

Subsection 2.—Representatives in Foreign Countries

Embassies and Legations

Argentina.—Ambassador: Mr. Warwick F. Chipman. Presented Letter of Credence Oct. 1, 1945. Address: Bartolome Mitre, 478, Buenos Aires.

Previous Minister:—

The Hon. W. F. A. Turgeon, 1941-44.

Chargé d'Affaires ad interim:—

Mr. K. P. Kirkwood, 1944-45.

Belgium.—Ambassador: Mr. Victor Dore. Presented Letter of Credence Jan. 21, 1947. Address: 46 Montoyer Street, Brussels.

Previous Ministers and Ambassadors:—

Ministers:—

Mr. Jean Desy, 1939-40.

Major-General George P. Vanier, 1943-45.

Chargé d'Affaires ad interim:—

Mr. Pierre Dupuy, 1940-43.

Ambassador:—

The Hon. W. F. A. Turgeon, 1945-47.

Brazil.—Ambassador: Mr. Jean Desy. Presented Letter of Credence Jan. 18, 1944. Mr. Jean Desy was Minister from 1941 until 1944. Address: Avenida President Wilson, 165, 7th Floor, Rio de Janeiro.

Chile.—Ambassador: Mr. C. F. Elliott. Appointed Nov. 6, 1946. Address: Bank of London and South America Building, Santiago.

Previous Ministers and Ambassadors:—

Ministers:—

The Hon. W. F. A. Turgeon, 1942-43

Mr. Warwick Chipman, 1943-44.

Ambassador:—

Mr. Warwick Chipman, 1944-46.

Chargé d'Affaires ad interim:—

Mr. Jules Leger, 1945-46.

China.—Ambassador: The Hon. T. C. Davis. Appointed Nov. 6, 1946. Address: No. 3 Tien Chu Road, Nanking.

Previous Ambassador:—

Major-General Victor W. Odlum, 1942-46.

Cuba.—Minister: Mr. Emile Vaillancourt. Presented Letter of Credence May 8, 1945. Address: Avenida de las Misiones No. 17, Havana.

Czechoslovakia.—Minister: Major-General George P. Vanier. Appointed Nov. 30, 1942.

Chargé d'Affaires ad interim:—

Mr. R. M. Macdonnell. Appointed February, 1947. Address: Prague.

Denmark.—Minister: Dr. Henry Laureys (Nominated).

Previous Minister:—

Mr. J. D. Kearney, 1946-47.

France.—Ambassador: Major-General George P. Vanier. Presented Letter of Credence Dec. 20, 1944. Major-General George P. Vanier was Minister from 1938 until 1944. Address: 75 Foch Avenue, Paris.

Previous Minister:—

The Hon. Philippe Roy, 1928-38.

Greece.—Ambassador: Major-General the Hon. L. R. LaFleche. Presented Letter of Credence Sept. 28, 1945. Address: 31 Queen Sofia Blvd., Athens.

Previous Minister:—

Major-General George P. Vanier, 1943-45.

Luxembourg.—Minister: MR. VICTOR DORE. Presented Letter of Credence Mar. 4, 1947. Address: 46 Montoyer Street, Brussels.

Previous Minister:—
THE HON. W. F. A. TURGEON, 1945-47.

Mexico.—Ambassador: MR. S. D. PIERCE (Nominated). Address: Edificio Internacional, Paseo de La Reforma, No. 1, Mexico City.

Previous Ambassadors:—
THE HON. W. F. A. TURGEON, 1944-45
DR. H. L. KEENLEYSIDE, 1945-47.

Netherlands.—Ambassador: MR. PIERRE DUPUY. Presented Letter of Credence Mar. 18, 1947. MR. PIERRE DUPUY was Minister from 1945 until 1947. Address: Sophialaan 1A, The Hague.

Previous Ministers:—
MR. JEAN DESY, 1939-40
MAJOR-GENERAL GEORGE P. VANIER, 1943-45.

Chargé d'Affaires ad interim:—
MR. PIERRE DUPUY, 1940-43.

Norway.—Minister: DR. HENRY LAUREYS (Nominated). Address: Fridtjof Nansens Place, 5 Oslo.

Previous Ministers:—
MAJOR-GENERAL GEORGE P. VANIER, 1943-46
MR. J. D. KEARNEY, 1946-47.

Peru.—Ambassador: MR. J. A. STRONG (Nominated). Address: Edificio Boza, Plaza San Martin, Lima.

Previous Ambassador:—
DR. HENRY LAUREYS, 1944-47.

Poland.—Minister: MAJOR-GENERAL GEORGE P. VANIER. Appointed Nov. 30, 1942.

Chargé d'Affaires ad interim:—
MR. K. P. KIRKWOOD. Appointed February, 1947. Address: Warsaw.

Sweden.—Minister: Vacant.

Chargé d'Affaires ad interim:—
MR. F. H. PALMER. Appointed February, 1947. Address: Strandvägen 7-C.

Switzerland.—Minister: Vacant.

Chargé d'Affaires ad interim:—
MR. P. E. RENAUD. Appointed March, 1947. Address: Berne.

Union of Soviet Socialist Republics.—Ambassador: MR. L. D. WILGRESS. Presented Letter of Credence Feb. 29, 1944. MR. L. D. WILGRESS was Minister from 1942 until 1944. Address: 23 Starokonyushny Pereulok, Moscow.

United States of America.—Ambassador: MR. H. H. WRONG. Presented Letter of Credence on Nov. 8, 1946. Address: 1746 Massachusetts Avenue, Washington, D.C.

Previous Ministers and Ambassadors:—

- Ministers:—
  - THE RT. HON. CHARLES VINCENT MASSEY, 1927-30
  - THE HON. W. D. HERRIDGE, 1931-35
  - THE HON. SIR HERBERT MARLER, 1936-39
  - MR. LORING C. CHRISTIE, 1939-41
  - THE HON. LEIGHTON G. MCCARTHY, 1941-43.
- Ambassadors:—
  - THE HON. LEIGHTON G. MCCARTHY, 1943-44
  - MR. L. B. PEARSON, 1944-46.

MILITARY AND LIAISON MISSIONS

Germany.—Head of Military Mission: LIEUTENANT-GENERAL MAURICE POPE. Address: Commonwealth House, 40 Johannesberger St., Wilmeredorf, Berlin.

Japan.—Head of Liaison Mission: MR. E. H. NORMAN. Address: 16 Omote-Machi, 3 Chome, Akaska-Ku, Tokyo.

CONSULATES

China.—Vice-Consul: MR. P. G. R. CAMPBELL, Address: Shanghai.

Portugal.—Acting Consul General: MR. L. S. GLASS. Address: Rua Rodrigo Fonseca, 103-40, Lisbon.

United States of America.—Consul General: MR. H. D. SCULLY. Address: 620 5th Avenue, New York, N.Y.

Honorary Vice-Consul:—

MR. A. LAFLEUR. Address: Office 503, 120 Exchange Street, Portland, Maine.

Venezuela.—Acting Consul General: MR. C. S. BISSETT. Address: No. 805, Edificio America, Esquina Veroes, Caracas.

Section 2.—Representatives of Other Countries in Canada

Subsection 1.—Representatives of the Governments of the British Commonwealth of Nations

High Commissioner for the United Kingdom: The HON. SIR ALEXANDER CLUTTERBUCK. Previous High Commissioners:—

- SIR WILLIAM H. CLARK, 1928-34
- SIR FRANCIS FLOUD, 1935-38
- SIR GERALD CAMPBELL, 1938-41
- The RT. HON. MALCOLM MACDONALD, 1941-46.

Address: Earnscliffe, Ottawa.

High Commissioner for the Commonwealth of Australia: The RT. HON. FRANCIS M. FORDE. Previous High Commissioners:—

- MAJOR-GENERAL THE HON. SIR WILLIAM GLASGOW, 1940-45
- The HON. ALFRED STIRLING, 1945-46.

Address: 114 Wellington Street, Ottawa.

High Commissioner for New Zealand: The Hon. David Wilson.
Address: 107 Wurtemburg Street, Ottawa.

High Commissioner for the Union of South Africa: The Hon. P. R. Viljoen. Previous Accredited Representative: Mr. David de Waal Meyer.
Address: 15 Sussex Street, Ottawa.

High Commissioner for Ireland: The Hon. John J. Hearne.
Address: 140 Wellington Street, Ottawa.

Subsection 2.—Diplomatic Representatives of Foreign Countries

Argentina: (Established 1941.)
Ambassador Extraordinary and Plenipotentiary: His Excellency Dr. Juan Carlos Rodriguez (Jan. 13, 1947).
Address: 18 Rideau Street, Ottawa.

Belgium: (Established 1937.)
Ambassador Extraordinary and Plenipotentiary: His Excellency A. Paternotte de la Vaillee (July 20, 1945).
Address: 395 Laurier Avenue East, Ottawa.

Brazil: (Established 1941.)
Ambassador Extraordinary and Plenipotentiary: His Excellency Dr. Acyr do Nascimento Paes (Apr. 26, 1946).
Address: 400 Wilbrod Street, Ottawa.

Chile: (Established 1942.)
Ambassador Extraordinary and Plenipotentiary: His Excellency General Arnaldo Carrasco (Nominated).
Address: 56 Sparks Street, Ottawa.

China: (Established 1942.)
Ambassador Extraordinary and Plenipotentiary: His Excellency Dr. Liu Shih Shun (Feb. 26, 1944). (Absent.)
Address: 201 Wurtemburg Street, Ottawa.

Cuba: (Established 1945.)
Envoy Extraordinary and Minister Plenipotentiary: His Excellency Dr. Mariano Brull (Nov. 2, 1945).
Address: 499 Wilbrod Street, Ottawa.

Czechoslovakia: (Established 1942.)
Envoy Extraordinary and Minister Plenipotentiary: His Excellency Frantisek Nemec (Mar. 11, 1947).
Address: 171 Clemow Avenue, Ottawa.

Denmark: (Established 1946.)
Envoy Extraordinary and Minister Plenipotentiary: His Excellency G. B. Holler (Mar. 7, 1946).

France: (Established 1928.)
Ambassador Extraordinary and Plenipotentiary: His Excellency Count Jean de Hauteclocque (Feb. 21, 1945).
Address: 42 Sussex Street, Ottawa.

Greece: (Established 1942.)

Ambassador Extraordinary and Plenipotentiary: His Excellency Constantine Sakellaropoulo (Nov. 12, 1945).

Address: Chateau Laurier, Ottawa.

Mexico: (Established 1944.)

Ambassador Extraordinary and Plenipotentiary: His Excellency Dr. Luis I. Rodriguez (Apr. 23, 1946). (Absent.)

Address: 87 Sparks Street, Ottawa.

Netherlands: (Established 1939.)

Ambassador Extraordinary and Plenipotentiary: His Excellency Dr. J. H. van Royen (Nominated).

Address: Suite 515, 56 Sparks Street, Ottawa.

Norway: (Established 1942.)

Envoy Extraordinary and Minister Plenipotentiary: His Excellency Daniel Steen (Apr. 2, 1942).

Address: 45 Rideau Street, Ottawa.

Peru: (Established 1944.)

Ambassador Extraordinary and Plenipotentiary: His Excellency Alfredo Benavides (Mar. 29, 1945).

Address: 36 Elgin Street, Ottawa.

Poland:

Envoy Extraordinary and Minister Plenipotentiary: His Excellency Dr. Alfred Fiderkiewicz (May 31, 1946).

Sweden: (Established 1943.)

Envoy Extraordinary and Minister Plenipotentiary: His Excellency Per Wijkman (Aug. 4, 1943).

Address: 720 Manor Road, Rockcliffe Park.

Switzerland: (Established 1945.)

Envoy Extraordinary and Minister Plenipotentiary. His Excellency Dr. Victor Nef (Apr. 25, 1946).

Address: Chateau Laurier, Ottawa.

Turkey: (Established 1944.)

Envoy Extraordinary and Minister Plenipotentiary: His Excellency Sevki Alhan (Mar. 6, 1944).

Address: Chateau Laurier, Ottawa.

Union of Soviet Socialist Republics: (Established 1942.)

Chargé d'Affaires ad interim: Nikolai Belokhvostikov. (Dec. 4, 1945.)

Address: 285 Charlotte Street, Ottawa.

United States of America: (Established 1927.)

Ambassador Extraordinary and Plenipotentiary: His Excellency the Hon. Ray Atherton (Nov. 19, 1943).

Address: 100 Wellington Street, Ottawa.

Yugoslavia: (Established 1942.)

Envoy Extraordinary and Minister Plenipotentiary. His Excellency Mato Jaksic (Nominated).

Address: 259 Daly Avenue, Ottawa.

CHAPTER IV.—POPULATION*

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Part III.—International Statistics of Population ... 128
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The records accumulated at the decennial censuses of Canada, since the creation of the Dominion in 1867 to the latest census to date, 1941, make a valuable contribution to the demographic history of the nation. Each successive decade has added to the vast scope of the material; the detailed statistical analyses and the numerous monographs and studies available under the several aspects of demography and agriculture have made the census a most important statistical measure of accomplishment and progress.

The salient aspects of population growth under each main heading shown in the conspectus are covered but not necessarily in any one edition. The Canada Year Book can do no more than summarize the broad results of the census. More detailed information can be obtained from the census publications.

The main legal reason for a periodic census under the Constitution of Canada is to determine representation in the House of Commons: this, according to the British North America Act, is based on population (see p. 63). The payment of provincial subsidies on a per capita basis is adjusted annually on population estimated from the census data. In view of this, the *de jure* principle of census enumeration is used, i.e., each person is counted as belonging to the locality of his regular domicile, rather than to the place he may be at the date of enumeration, a method followed in some other countries.

The modern Dominion-wide census, however important this redistribution purpose, has a much wider sphere of usefulness. It constitutes, through the data collected directly from the people, a true measure of the social and economic progress of the country and can therefore be used in the regulation of general administration and public affairs, social security and rehabilitation programs, etc.

History of the Census in Canada.—In 1666, Talon, the Intendant of New France, took an official census of the Colony for the purpose of measuring the increase in population that had taken place since the founding of Quebec by Champlain in 1608. These figures are, however, of historical interest rather than accurate census data. (For further details, see Census of Canada, 1931, Vol. I, pp. 133-153.)

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* This Chapter has been checked by O. A. Lemieux, Director, Census (Demography), Dominion Bureau of Statistics.

Similar censuses of New France, which grew in detail, were taken no less than thirty-six times during the years intervening between 1666 and 1739 and many more times from that date to the close of the French regime in 1763. During the following years (see the 1942 Year Book, p. 83) a series of less elaborate reports supervened, with censuses appearing at irregular intervals, until the year 1841 when an Act was passed on Sept. 18, after the union of Upper and Lower Canada, which provided that a census should be taken in the year 1842 and every fifth year thereafter. Under this Act a census of Upper Canada only was taken: the Act was amended in 1842 and a census of Lower Canada was taken in 1844. (See Census of Canada, 1931, Vol. I, p. 36.)

In 1847, legislation was passed creating a Board of Registration and Statistics which took a census of Upper Canada in 1848 and a general census in 1850.

In 1851, Royal Assent was given to an Act to provide more effectually for the taking of the census in 1852 (these figures were later linked with those taken by the colonies of Nova Scotia and New Brunswick in 1851, and in Prince Edward Island in 1848 to give reasonably comparable totals, *circa* 1851, for these sections of British North America), 1861 and every tenth year thereafter. An unbroken series of census records, taken at regular decennial periods, is therefore available for all provinces constituting the Dominion of Canada over a period of ninety years. With the opening up of settlement in the three western provinces, immigration developed on such a scale that an Act was passed in 1918 providing that a census of population and agriculture be taken in the Provinces of Manitoba, Saskatchewan and Alberta in 1926 and every tenth year thereafter. Thus censuses of the Prairie Provinces are now taken quinquennially and of the Dominion as a whole decennially. The primary purpose of the former is to fix the basis for subsidies payable on a per capita basis to the western provinces by the Dominion Government. (See Census Legislation in Canada, Census of Canada, 1931, Vol. I, p. 29; or Statutes 49 Vict., c. 46, s. 5; 4-5 Edw. VII, c. 3, s. 18B; 4-5 Edw. VII, c. 42, s. 18B.)

Growth of Population in Canada.—A brief résumé of the population history of Canada from the first census in 1666, when it numbered 3,215 persons, to the eighth Dominion Census of 1941, when the figure was 11,506,655, places Canada among the leading countries of the British Empire in the rate of population growth. The inflow of capital and the opening up of new and vast areas with the consequent stimulation of immigration began with the opening of the twentieth century and was the latest episode in the transformation of the central prairie region, which, in the course of forty years, has been organized into provinces and developed with such promise. The population of the Dominion of Canada at the end of the nineteenth century was approximately 5,400,000; it had about doubled this figure by 1931. The general increase in the population of European countries during the entire nineteenth century was approximately three-fold; Canada equalled this rate of progress during the sixty years from 1871 to 1931.

In the decade 1901-11 immigration, alone, totalled 1,800,000. This figure was the main factor in the gain of 34·2 p.c.—the total population of Canada registered in that decade—which was relatively larger than the growth of any modern country during the same period.

The next decade started out with an intensification of this immigration movement, but with the outbreak of the War of 1914-18 a recession set in. The effects of that War upon the Canadian population were both direct and indirect. Nearly 60,000 members of the Canadian Forces died overseas and approximately 20,000 took their discharge in the United Kingdom. To these may be added 50,000 deaths from the war plague, influenza. In addition large numbers of British Isles residents in Canada, most of them recent immigrants, left Canada to join the Armed Forces of the United Kingdom and did not return; the same is true of enemy nationals who passed in considerable numbers into the United States immediately before and after the declaration of hostilities. The fluidity of the Canadian population accordingly rendered the War costly in personnel far beyond actual casualties. However, the net result over the ten years was a population increase of 21·9 p.c. or the largest increase for any modern country with the exception of Australia where an increase of 22·0 p.c. was recorded.

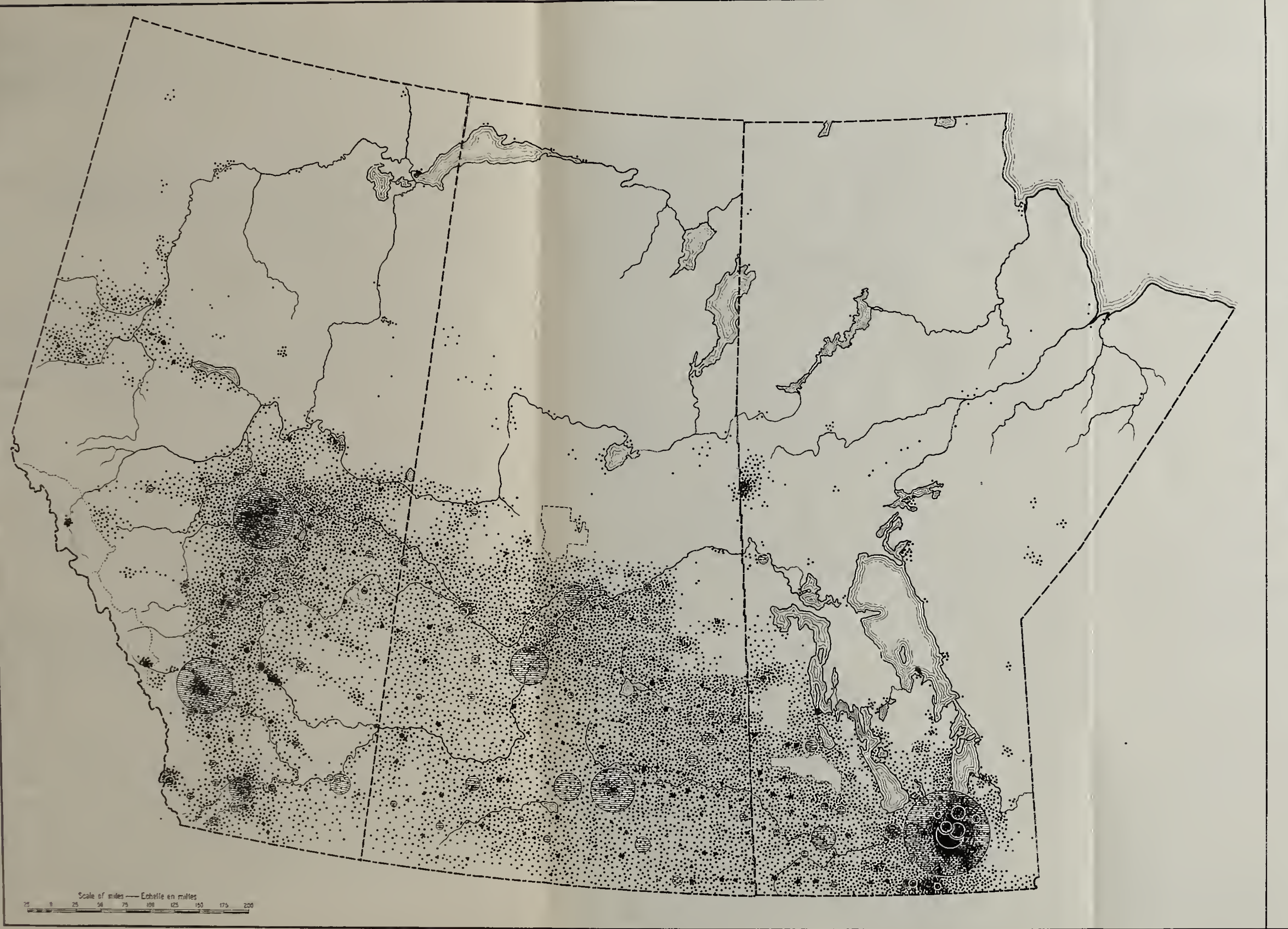
The Census of 1931 showed a further increase of 18·1 p.c. over 1921. Natural increase and immigration contributed 1,325,256 and 1,509,136, respectively, although the net gain was only 1,588,837 since estimated emigration was 1,245,555, for the 10 years. Census returns of Great Britain for 1921-31 showed an increase of 4·7 p.c., equalling that of the previous decade. New Zealand in the ten-year interval between 1911-21 showed an increase of 19·8 p.c. and between 1921-31, 19·3 p.c. A census of Australia was not taken in 1931, but the official estimate of population based on the Census of 1933 gives an increase of 19·8 p.c. as against 22·0 p.c. for the period 1911-21. Census figures for the United States showed an increase of population of 14·9 p.c. between 1910-20 and 16·1 p.c. from 1920-30.

The eighth census of Canada taken June 2, 1941, gave the population as 11,506,655 as compared with 10,376,786 as of June 1, 1931, an increase of 1,129,869 or 10·9 p.c. in the decade. During the greater part of this decade Canada, along with all other countries, was face to face with a prolonged and severe economic depression; immigration was still further restricted by government regulations as well as by economic necessity. The figures for immigrant arrivals were actually reduced from 1,166,004 in the ten-year period 1921-31 to 140,361 in 1931-41. The natural increase for this period showed a reduction of about 7 p.c. and, since immigration was reduced more than 88 p.c. over the decade, the net increase in population was due almost entirely to the favourable birth and death rates of the established population.

PART I.—STATISTICS OF GENERAL POPULATION

Section 1.—Census Statistics of General Population

Since the creation of the Dominion of Canada in 1867, decennial censuses have been taken as of Apr. 2, 1871, Apr. 4, 1881, Apr. 5, 1891, Apr. 1, 1901, June 1, 1911, 1921, 1931 and June 2, 1941. Summary figures are given in Tables **1** and **2**.



DISTRIBUTION OF POPULATION, PRAIRIE PROVINCES, 1946

DISTRIBUTION DE LA POPULATION, PROVINCES DES PRAIRIES, 1946

NOTE:
A dot represents 100 people. Cities, towns and villages with populations of more than 1,000 are shown by discs proportionate in area to the dot. Lesser centres are shown by concentrations of dots.

NOTA:
Un point représente 100 personnes. Les cités, villes et villages d'une population de plus de 1,000 sont indiqués par des disques dont la surface est proportionnée au point. Les centres moins considérables sont indiqués par des concentrations de points.

LEGEND — LEGENDE

Scale for Typical Urban Centres shown by Discs

Echelle pour les centres urbains types indiqués par des disques

MANITOBA

Winnipeg	St. Boniface	Portage la Prairie	Dauphin	Neepawa	Gimli
●	●	●	●	●	●
229,045	21,613	7,620	4,637	2,468	1,045

SASKATCHEWAN

Regina	Moose Jaw	Weyburn	Melville	Kamsack	Sutherland
●	●	●	●	●	●
60,246	23,069	7,003	3,824	1,754	1,046

ALBERTA

Edmonton	Lethbridge	Medicine Hat	Red Deer	Grande Prairie	Rocky Mountain House
●	●	●	●	●	●
113,116	16,522	12,859	4,042	2,267	1,017

1.—Population of Canada, by Provinces and Territories, Census Years 1871-1941

NOTE.—The populations of the Prairie Provinces in 1906, 1916, 1926 and 1936, are shown at p. 147 of the 1937 Year Book. Intercensal estimated populations from 1867–1904 will be found at p. 141 of the 1936 Year Book; from 1905–30 at p. 127 of the 1946 edition; and from 1931–46 in Table 3 of the present edition.

Province or Territory	1871	1881	1891	1901	1911	1921	1931	1941
P.E. Island	94,021	108,891	109,078	103,259	93,728	88,615	88,038	95,047
Nova Scotia	387,800	440,572	450,396	459,574	492,338	523,837	512,846	577,962
New Brunswick	285,594	321,233	321,263	331,120	351,889	387,876	408,219	457,401
Quebec	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776[1]	2,360,510[2]	2,874,662	3,331,882
Ontario	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292[1]	2,933,662	3,431,683	3,787,655
Manitoba	25,228	62,260	152,506	255,211	461,394[1]	610,118	700,139	729,744
Saskatchewan	–	–	–	91,279	492,432	757,510	921,785	895,992
Alberta	–	–	–	73,022	374,295[3]	588,454	731,605	796,169
British Columbia	36,247	49,459	98,173	178,657	392,480	524,582	694,263	817,861
Yukon	–	–	–	27,219	8,512	4,157	4,230	4,914
N.W.T.[4]	48,000	56,446	98,967	20,129	6,507[3]	8,143	9,316	12,028
Canada	**3,689,257**	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,787,949**[2]	**10,376,786**	**11,506,655**

[1] Corrected as a result of the Boundaries Extension Acts, 1912. [2] Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for Canada includes 485 members of the Royal Canadian Navy who were recorded separately in 1921. [3] Corrected by transfer of population of Fort Smith (368) to the Northwest Territories. [4] The decreases shown in the population of the Northwest Territories since 1891 are due to the separation therefrom of vast areas to form Alberta, Saskatchewan and Yukon and to extend the boundaries of Quebec, Ontario and Manitoba.

2.—Population of Canada, by Provinces and Territories, in 1871 and 1941, and Numerical Increases, by Decades, 1871-1941

Province or Territory	Population in 1871	Increase in Each Decade							Population in 1941	Increase 1871 to 1941
		1871 to 1881	1881 to 1891	1891 to 1901	1901 to 1911	1911 to 1921	1921 to 1931	1931 to 1941		
P.E.I.	94,021	14,870	187	−5,819	−9,531	−5,113	−577	7,009	95,047	1,026
N.S.	387,800	52,772	9,824	9,178	32,764	31,499	−10,991	65,116	577,962	190,162
N.B.	285,594	35,639	30	9,857	20,769	35,987	20,343	49,182	457,401	171,807
Que.	1,191,516	167,511	129,508	160,363	356,878	354,734[1]	514,152	457,220	3,331,882	2,140,366
Ont.	1,620,851	306,071	187,399	68,626	344,345	406,370	498,021	355,972	3,787,655	2,166,804
Man.	25,228	37,032	90,246	102,705	206,183	148,724	90,021	29,605	729,744	704,516
Sask.	–	–	–	91,279	401,153	265,078	164,275	−25,793	895,992	895,992
Alta.	–	–	–	73,022	301,273	214,159	143,151	64,564	796,169	796,169
B.C.	36,247	13,212	48,714	80,484	213,823	132,102	169,681	123,598	817,861	781,614
Yukon	–	–	–	27,219	−18,707	−4,355	73	684	4,914	4,914
N.W.T.[2]	48,000	8,446	42,521	−78,838	−13,622	1,636	1,173	2,712	12,028	−35,972
Canada	**3,689,257**	**635,553**	**508,429**	**538,076**	**1,835,328**	**1,581,306**[1]	**1,588,837**	**1,129,869**	**11,506,655**	**7,817,398**

[1] Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for Canada includes 485 members of the Royal Canadian Navy who were recorded separately in 1921. [2] The decreases shown in the population of the Northwest Territories since 1891 are due to the separation therefrom of vast areas to form Alberta, Saskatchewan and Yukon and to extend the boundaries of Quebec, Ontario and Manitoba.

Section 2.—Intercensal Estimates of Population

The exact statement of the population of Canada given at ten-year intervals by the Census must be supplemented by estimates for intervening years. These are essential for the calculation of per capita figures in production and trade, and particularly for use as a base in birth and death comparisons.

The calculation for Canada as a whole is easier than that for its component parts. The number of births, deaths and immigrants each year is known and reasonably accurate estimates can be made of the amount of emigration from the immigration reports of the countries to which Canadians most frequently move, principally the United States and the United Kingdom.

The analysis according to provinces normally involves a large error, particularly in the time of rapid movement of population within the country. The period since 1941 has been characterized by particularly heavy movements of population, but fortunately ration-book figures available provide a very satisfactory means of ascertaining these estimates. During the war years the numbers of members of the Armed Forces whose homes were in the respective provinces were added to the rationed population, in order to secure the total number of persons legally resident in each province—the annual estimated figure comparable with the Census.

3.—Estimates of the Population of Canada, by Provinces, Intercensal Years, 1931-46

NOTE.—At every census the previous post-censal data are adjusted to the newly recorded population figures. Figures for 1867–1904 will be found at p. 141 of the 1936 Year Book and for 1905–30 at p. 127 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1931	**88**	**513**	**408**	**2,874**	**3,432**	**700**	**922**	**732**	**694**	**4**	**9**	**10,376**
1932	89	519	414	2,925	3,473	705	924	740	707	4	10	10,510
1933	90	525	419	2,972	3,512	708	926	750	717	4	10	10,633
1934	91	531	423	3,016	3,544	709	928	758	727	4	10	10,741
1935	92	536	428	3,057	3,575	710	930	765	736	5	11	10,845
1936	93	543	433	3,099	3,606	711	931	773	745	5	11	10,950
1937	93	549	437	3,141	3,637	715	922	776	759	5	11	11,045
1938	94	555	442	3,183	3,672	720	914	781	775	5	11	11,152
1939	94	561	447	3,230	3,708	726	906	786	792	5	12	11,267
1940	95	569	452	3,278	3,747	728	900	790	805	5	12	11,381
1941	**95**	**578**	**457**	**3,332**	**3,788**	**730**	**896**	**796**	**818**	**5**	**12**	**11,507**
1942[1]	90	591	464	3,390	3,884	724	848	776	870	5	12	11,654
1943[1]	91	607	463	3,457	3,917	726	842	792	900	5	12	11,812
1944[1]	91	612	462	3,500	3,965	732	846	818	932	5	12	11,975
1945[1]	92	621	468	3,561	4,004	736	845	826	949	5	12	12,119
1946[1]	94	612	480	3,630	4,107	727	830	800	1,003	8	16	12,307

[1] These estimates are subject to adjustment as later data are made available.

4.—Summary of Births, Deaths, Natural Increase, Immigration and Estimated Emigration, Calendar Years, with Estimated Population as at June 1, 1931-45

(Exclusive of Yukon and the Northwest Territories)

Year	Calendar-Year Data					Estimated Population as at June 1
	Births	Deaths	Natural Increase	Immigration	Estimated Emigration	
1931	**240,473**	**104,517**	**135,956**	**27,508**	–	**10,363,000**
1932	235,666	104,377	131,289	20,579	18,868	10,496,000
1933	222,868	101,968	120,900	14,358	12,258	10,619,000
1934	221,303	101,582	119,721	12,466	24,187	10,727,000
1935	221,451	105,567	115,884	11,251	25,135	10,829,000
1936	220,371	107,050	113,321	11,634	19,955	10,934,000
1937	220,235	113,824	106,411	15,080	26,491	11,029,000
1938	229,446	106,817	122,629	17,232	32,861	11,136,000
1939	229,468	108,951	120,517	16,978	23,495	11,250,000
1940	244,316	110,927	133,389	11,312	30,701	11,364,000
1941	**255,224**	**114,500**	**140,724**	**9,325**	**24,049**	**11,490,000**
1942	272,184	112,848	159,336	7,576	19,912	11,637,000[1]
1943	283,423	118,531	164,892	8,502	15,394	11,795,000[1]
1944	284,220	116,052	168,168	12,793	17,961	11,958,000[1]
1945	288,730	113,414	175,316	22,711	54,027	12,102,000[1]

[1] These estimates are subject to adjustment as later data are made available.

The present trends of growth as applied to the future are reviewed in a short analysis in the 1946 Year Book at pp. 127-128. Further details on this subject may be found in Bulletin F-4 "The Future Population of Canada", published by the Dominion Bureau of Statistics.

PART II.—CENSUS ANALYSES OF GENERAL POPULATION

Section 1.—Rural and Urban Population

The population residing in cities, towns and incorporated villages has been defined for census purposes as 'urban' and that outside of such localities as 'rural'. The distinction between rural and urban populations in Canada, therefore, is a distinction of provincial legal status rather than of size of aggregation of population within a limited area. Since the laws of the various provinces differ in regard to the population necessary before a municipality may be incorporated as urban,* the line of demarcation between rural and urban population is not uniformly drawn throughout the Dominion.

This basis of comparing rural and urban populations adhered to throughout the census analyses is adopted for Canada because the necessary comparable data over a long period of years required for comparison by degree of urbanization does not exist. Obviously, the populations of villages of less than 1,000 cannot be regarded as truly urban, although there is reason, for certain purposes, to distinguish them from the surrounding rural populations, in that they enjoy definite cultural advantages not possessed by the strictly rural municipalities.

Table **1** has been prepared to overcome some of the difficulties involved, and to provide a basis for comparison of urban centres by size with those of other countries. These data enable places outside any required size limits to be readily excluded. Similar data, by provinces, will be found in Vol. II of the Census of 1941.

During the latest four decades there has been a radical shifting in the distribution of the Canadian population from rural to urban district. The change has been continuous throughout the period. In the decade ended 1941 the proportion of urban population increased from 53·7 p.c. to 54·3 p.c. Urban communities absorbed nearly 60·2 p.c. of the total increase in population during that decade and the urban population of Canada in 1941 exceeded the rural by 998,177. Out of every 1,000 persons in the country, 457 were resident in rural and 543 in urban communities on June 2, 1941, as compared with 463 in rural and 537 in urban communities on June 1, 1931; 505 in rural and 495 in urban on June 1, 1921; and 546 in rural and 454 in urban on June 1, 1911. In this trend to urbanization of population, Canada is by no means unique. The same change has characterized virtually all western nations to a greater or lesser degree during the past century.

Table **1** gives the distribution of urban population in Canada by size of urban centres; the rural-urban trend is very strongly indicated by the increased size of the larger cities and towns at a time when immigration, which in former decades (especially that of British origin) tended to concentrate in urban centres, was negligible.

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* In Saskatchewan the original legislation of 1908 provided that a community of 50 persons on an area not greater than 640 acres might be incorporated. Several amendments have since been made and, as the Act now stands, 100 people resident on an area not greater than 240 acres may be incorporated. The Ontario law, on the other hand, requires that a village before it can be incorporated must have a population of 750 on an area not exceeding 500 acres.

1.—Urban Populations, by Size-of-Municipality Groups, Census Years 1921-41

Urban Centres of—	1921			1931			1941		
	Number of Places	Population	P.C. of Total Pop.	Number of Places	Population	P.C. of Total Pop.	Number of Places	Population	P.C. of Total Pop
Over 500,000	2	1,140,399	12·98	2	1,449,784	13·97	2	1,570,464	13·65
Between—									
400,000 and 500,000	Nil	–	–	Nil	–	–	Nil	–	–
300,000 and 400,000	"	–	–	"	–	–	"	–	–
200,000 and 300,000	"	–	–	2	465,378	4·49	2	497,313	4·32
100,000 and 200,000	4	518,298	5·90	3	413,013	3·98	4	577,356	5·02
50,000 and 100,000	5	336,650	3·83	7	470,443	4·54	7	508,808	4·42
25,000 and 50,000	7	239,096	2·72	10	339,521	3·27	19	605,805	5·26
15,000 and 25,000	19	370,990	4·22	23	457,292	4·41	20	377,505	3·28
10,000 and 15,000	18	224,033	2·55	23	275,944	2·66	24	296,195	2·57
5,000 and 10,000	54	382,762	4·36	68	458,784	4·42	74	510,429	4·44
3,000 and 5,000	72	272,720	3·10	71	273,276	2·63	91	348,709	3·03
1,000 and 3,000	293	492,116	5·60	324	557,466	5·37	337	561,019	4·88
500 and 1,000	290	215,648	2·45	322	231,375	2·23	310	219,571	1·91
Under 500	679	159,410	1·81	750	179,782	1·73	750	179,242	1·56
Totals	**1,443**	**4,352,122**	**49·52**	**1,605**	**5,572,058**	**53·70**	**1,640**	**6,252,416**	**54·34**

2.—Rural and Urban Populations, by Provinces and Territories, Census Years 1911-41

Province or Territory	1911		1921		1931		1941	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
P.E. Island	78,758	14,970	69,522	19,093	67,653	20,385	70,707	24,340
Nova Scotia	306,210	186,128	296,799	227,038	281,192	231,654	310,422	267,540
New Brunswick	252,342	99,547	263,432	124,444	279,279	128,940	313,978	143,423
Quebec	1,038,934	966,842	1,037,941	1,322,569	1,061,056	1,813,606	1,222,198	2,109,684
Ontario	1,198,803	1,328,489	1,227,030	1,706,632	1,335,691	2,095,992	1,449,022	2,338,633
Manitoba	261,029	200,365	348,502	261,616	384,170	315,969	407,871	321,873
Saskatchewan	361,037	131,395	538,552	218,958	630,880	290,905	600,846	295,146
Alberta	236,633	137,662	365,550	222,904	453,097	278,508	489,583	306,586
British Columbia	188,796	203,684	277,020	247,562	299,524	394,739	374,467	443,394
Yukon	4,647	3,865	2,851	1,306	2,870	1,360	3,117	1,797
N.W.T.	6,507	Nil	8,143	Nil	9,316	Nil	12,028	Nil
Canada	**3,933,696**	**3,272,947**	**4,435,827**[1]	**4,352,122**	**4,804,728**	**5,572,058**	**5,254,239**	**6,252,416**

[1] Royal Canadian Navy (485) included in rural total.

Montreal, the largest city in Canada, increased by 84,430 in the decade 1931-41, from 818,577 to 903,007; Toronto, the only other city of over half a million population, increased by 36,250 from 631,207 to 667,457. Vancouver and Winnipeg went up to 275,353 and 221,960, respectively; Hamilton, Ottawa and Quebec were all over 150,000; Windsor over 100,000; and the western cities of Edmonton and Calgary 93,817 and 88,904, respectively. These latter cities exceeded London, which also came in the 75,000 to 100,000 class in 1941.

All the larger cities have in their neighbourhoods growing 'satellite' towns or other densely settled areas in close economic relationship with the central municipality. It has, therefore, been advisable to calculate the total populations for the metropolitan areas of these greater cities. Table 3 shows comparative figures for these greater cities for 1931 and 1941.

3.—Population of Greater Cities in 1941 Compared with 1931

Greater City	1941	1931	Greater City	1941	1931
	No.	No.		No.	No.
Montreal	1,139,921	1,023,158	Hamilton	176,110	163,710
Toronto	900,491	810,467	Windsor	121,112	110,385
Vancouver	351,491	308,340	Halifax	91,829	74,161
Winnipeg	290,540	284,295	London	86,740	[1]
Ottawa	215,022	175,988	Victoria	75,218	[1]
Quebec	200,814	172,517	Saint John	65,784	58,717

[1] Not included in Greater Cities in 1931.

4.—Urban Centres With Populations of Over 30,000 in 1941 Compared with Census Years 1871-1931

NOTE.—Urban centres in which a Board of Trade exists are indicated by an asterisk (*), and those in which there is a Chamber of Commerce by a dagger (†). In all cases the populations for previous censuses have been adjusted to cover the same area as in 1941.

Rank	Urban Centre and Province	Populations							
		1871	1881	1891	1901	1911	1921	1931	1941
		No.	No.	No.	No.	No.	No.	No.	No.
1	*†Montreal, Que	129,822	176,263	254,278	325,653	490,504	618,506	818,577	903,007
2	*Toronto, Ont	59,000	96,196	181,215	218,504	381,833	521,893	631,207	667,457
3	*Vancouver, B.C	–	–	13,709	29,432	120,847	163,220	246,593	275,353
4	*Winnipeg, Man	241	7,985	25,639	42,340	136,035	179,087	218,785	221,960
5	†Hamilton, Ont	26,880	36,661	48,959	52,634	81,969	114,151	155,547	166,337
6	*Ottawa, Ont	24,141	31,307	44,154	64,226	87,062	107,843	126,872	154,951
7	*Quebec, Que	59,699	62,446	63,090	68,840	78,118	95,193	130,594	150,757
8	†Windsor, Ont	5,413	7,704	12,607	15,198	23,433	55,935	98,179	105,311
9	†Edmonton, Alta	–	–	–	4,176	31,064	58,821	79,197	93,817
10	*Calgary, Alta	–	–	3,876	4,392	43,704	63,305	83,761	88,904
11	†London, Ont	18,000	27,867	31,977	37,976	46,300	60,959	71,148	78,264
12	*Halifax, N.S	29,582	36,100	38,437	40,832	46,619	58,372	59,275	70,488
13	†Verdun, Que	–	278	296	1,898	11,629	25,001	60,745	67,349
14	*Regina, Sask	–	–	–	2,249	30,213	34,432	53,209	58,245
15	*Saint John, N.B	41,325	41,353	39,179	40,711	42,511	47,166	47,514	51,741
16	†Victoria, B.C	3,270	5,925	16,841	20,919	31,660	38,727	39,082	44,068
17	*Saskatoon, Sask	–	–	–	113	12,004	25,739	43,291	43,027
18	†Three Rivers, Que	7,570	8,670	8,334	9,981	13,691	22,367	35,450	42,007
19	†Sherbrooke, Que	4,432	7,227	10,097	11,765	16,405	23,515	28,933	35,965
20	*Kitchener, Ont	2,743	4,054	7,425	9,747	15,196	21,763	30,793	35,657
21	†Hull, Que	3,800	6,890	11,264	13,993	18,222	24,117	29,433	32,947
22	*Sudbury, Ont	–	–	–	2,027	4,150	8,621	18,518	32,203
23	*Brantford, Ont	8,107	9,616	12,753	16,619	23,132	29,440	30,107	31,948
24	Outremont, Que	–	387	795	1,148	4,820	13,249	28,641	30,751
25	†Fort William, Ont	–	690	2,176	3,633	16,499	20,541	26,277	30,585
26	†St. Catharines, Ont	7,864	9,631	9,170	9,946	12,484	19,881	24,753	30,275
27	†Kingston, Ont	12,407	14,091	19,263	17,961	18,874	21,753	23,439	30,126

5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, 1941, Compared with Census Years 1901-31

NOTE.—In all cases the population for previous censuses have been adjusted to cover the same areas as in 1941.

Province and Urban Centre	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.
P.E. Island—					
Charlottetown	10,718	9,883	10,814	12,361	14,821
Summerside	2,875	2,678	3,228	3,759	5,034
Souris	1,140	1,089	1,094	1,063	1,114
Nova Scotia—					
Sydney	9,909	17,723	22,545	23,089	28,305
Glace Bay	6,945	16,562	17,007	20,706	25,147
Dartmouth	4,806	5,058	7,899	9,100	10,847
Truro	5,993	6,107	7,562	7,901	10,272
New Waterford	–	–	5,615	7,745	9,302
New Glasgow	4,447	6,383	8,974	8,858	9,210
Amherst	4,964	8,973	9,998	7,450	8,620
Sydney Mines	3,191	7,470	8,327	7,769	8,198
Yarmouth	6,430	6,600	7,073	7,055	7,790
Springhill	4,559	5,713	5,681	6,355	7,170
North Sydney	4,646	5,418	6,585	6,139	6,836
Stellarton	2,335	3,910	5,312	5,002	5,351
Westville	3,471	4,417	4,550	3,946	4,115
Kentville	1,731	2,304	2,717	3,033	3,928
Bridgewater	2,203	2,340	3,147	3,262	3,445
Windsor	2,849	2,894	2,946	3,032	3,436
Dominion	1,546	2,589	2,390	2,846	3,279
Liverpool	1,937	2,109	2,294	2,669	3,170
Pictou	3,235	3,179	2,988	3,152	3,069
Inverness	306	2,719	2,963	2,900	2,975
Lunenburg	2,916	2,681	2,792	2,727	2,856
Trenton	1,274	1,749	2,844	2,613	2,699
Antigonish	1,838	1,787	1,746	1,764	2,157
Parrsboro	2,705	2,224	2,161	1,919	1,971
Wolfville	1,412	1,458	1,743	1,818	1,944
Digby	1,150	1,247	1,230	1,412	1,657
Shelburne	1,445	1,435	1,360	1,474	1,605
Canso	1,479	1,617	1,626	1,575	1,418
Wedgeport	1,026	1,392	1,424	1,294	1,327
Oxford	1,285	1,392	1,402	1,133	1,297
Middleton	537	827	875	904	1,172
Joggins	1,088	1,648	1,732	1,000	1,109
Lockeport	1,117	784	851	973	1,084
Mulgrave	–	–	–	975	1,057
Port Hawkesbury	633	684	869	1,011	1,031
Mahone Bay	866	951	1,177	1,065	1,025
Bridgetown	858	996	1,086	1,126	1,020
Louisburg	1,046	1,006	1,152	971	1,012
New Brunswick—					
Moncton	9,026	11,345	17,488	20,689	22,763
Fredericton	7,117	7,208	8,114	8,830	10,062
Edmundston	–	1,821	4,035	6,430	7,096
Campbellton	2,652	3,817	5,570	6,505	6,748
Dalhousie	262	1,650	1,958	3,974	4,508
Chatham	4,868	4,666	4,506	4,017	4,082
Newcastle	2,507	2,945	3,507	3,383	3,781
Woodstock	3,644	3,856	3,380	3,259	3,593
Bathurst	1,044	960	3,327	3,300	3,554
St. Stephen	2,840	2,836	3,452	3,437	3,306
Sussex	1,398	1,906	2,198	2,252	3,027
Sackville	1,444	2,039	2,173	2,234	2,489
Devon	–	–	1,924	1,977	2,337
Shediac	1,075	1,442	1,973	1,883	2,147
Milltown	2,044	1,804	1,976	1,735	1,876
Grand Falls	644	1,280	1,327	1,556	1,806
Marysville	1,892	1,837	1,614	1,512	1,651
Sunny Brae	–	–	–	–	1,368
St. George	733	988	1,110	1,087	1,169
St. Andrews	1,064	987	1,065	1,207	1,167
St. Leonard	–	–	–	–	1,095
Quebec—					
Westmount	8,856	14,579	17,593	24,235	26,047
Shawinigan Falls	–	4,265	10,625	15,345	20,325
Lachine	6,365	11,688	15,404	18,630	20,051
St. Hyacinthe	9,210	9,797	10,859	13,448	17,798
Valleyfield (Salaberry de)	11,055	9,449	9,215	11,411	17,052
Chicoutimi	3,826	5,880	8,937	11,877	16,040
Granby	3,773	4,750	6,785	10,587	14,197
Jonquière	–	2,354	4,851	9,448	13,769
St. Jean	4,030	5,903	7,734	11,256	13,646
Joliette	4,220	6,346	9,039	10,765	12,749
Thetford Mines	3,256	7,261	8,272	10,701	12,716
Sorel	7,057	8,420	8,174	10,320	12,251
Lévis	9,242	8,703	10,470	11,724	11,991
Cap-de-la-Madeleine	–	–	6,738	8,748	11,961
St. Jérôme	3,619	3,473	5,491	8,967	11,329
Drummondville	1,450	1,725	2,852	6,609	10,555
Magog	3,516	3,978	5,159	6,302	9,034
Rouyn	–	–	–	3,225	8,808
Rivière-du-Loup	4,569	6,774	7,703	8,499	8,713
Grand'Mère	2,511	4,783	7,631	6,461	8,608
Victoriaville	1,693	3,028	3,759	6,213	8,516
La Tuque	–	2,934	5,603	7,871	7,919
Lauzon	4,267	4,982	6,428	7,084	7,877
Longueuil	2,835	3,972	4,682	5,407	7,087
Rimouski	1,804	3,097	3,612	5,589	7,009
Kenogami	–	–	2,557	4,500	6,579
St. Joseph d'Alma	–	–	850	3,970	6,449
St. Lambert	1,362	3,344	3,890	6,075	6,417
St. Laurent	1,390	1,860	3,232	5,348	6,242
Montreal North	–	–	1,360	4,519	6,152
Asbestos	183	2,224	2,189	4,396	5,711
St. Joseph de Grantham	–	–	–	2,812	5,556
Montmorency	–	2,710	3,367	4,575	5,393
Lachute	2,022	2,407	2,592	3,906	5,310
Giffard	–	–	1,254	3,573	4.909
Mount Royal	–	–	160	2,174	4,888
Ste. Thérèse	1,541	2,120	3,043	3,292	4,659
Lasalle	–	–	726	2,362	4,651
Matane	1,176	2,056	3,050	4,757	4,633
Montmagny	1,919	2,617	4,145	3,927	4,585
Arvida	–	–	–	1,790	4,581
Noranda	–	–	–	2,246	4,576
Mégantic	2,171	2,816	3,140	3,911	4,560
Pointe Claire	555	793	2,617	4,058	4,536
Buckingham	2,936	3,854	3,835	4,638	4,516
Coaticook	2,880	3,165	3,554	4,044	4,414
Val d'Or	–	–	–	–	4,385
Pointe-aux-Trembles	–	1,517	2,350	2,970	4,314
St. Pierre	505	2,201	3,535	4,185	4,061
Farnham	3,114	3,560	3,343	4,205	4,055
Nicolet	2,225	2,593	2,342	2,868	3,751
Beauport	–	–	3,240	3,242	3,725
Quebec W.	–	–	130	1,813	3,619
Beauharnois	1,976	2,015	2,250	3,729	3,550
Louiseville	1,565	1,675	1,772	2,365	3,542
Mont Joli	822	2,141	2,799	3,143	3,533
Plessisville	1,586	1,559	2,032	2,536	3,522
East Angus	–	–	3,802	3,566	3,501
Baie St. Paul	1,408	1,857	2,291	2,916	3,500
Cowansville	699	881	1,094	1,859	3,486

5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, 1941, Compared with Census Years 1901-31—continued

Province and Urban Centre	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.
Quebec—con.					
Montreal W.	352	703	1,882	3,190	3,474
Iberville	1,512	1,905	2,454	2,778	3,454
Windsor	2,149	2,233	2,330	2,720	3,368
Ste. Agathe-des-Monts	1,073	2,020	2,812	2,949	3,308
Bagotville	507	1,011	2,204	2,468	3,248
Port Alfred	–	–	1,213	2,342	3,243
Laval-des-Rapides	–	1,014	1,989	2,716	3,242
Roberval	1,248	1,737	2,068	2,770	3,220
Waterloo	1,797	1,886	2,063	2,192	3,173
Aylmer	2,291	3,109	2,970	2,835	3,115
Brownsburg	–	–	–	–	3,105
Richmond	2,057	2,175	2,450	2,596	3,082
Donnacona	–	–	1,225	2,631	3,064
Ste. Anne de Bellevue	1,343	1,416	2,212	2,417	3,006
St. Michel	–	–	493	1,528	2,956
Laprairie	1,451	2,388	2,158	2,774	2,936
Malartic	–	–	–	–	2,895
Amos	–	–	1,488	2,153	2,862
Dolbeau	–	–	–	2,032	2,847
Charny	–	1,408	2,265	2,823	2,831
Gatineau	–	–	–	–	2,822
Charlesbourg	–	–	1,267	1,869	2,789
Mont Laurier	–	752	2,211	2,394	2,661
Berthier	1,364	1,335	2,193	2,431	2,634
Loretteville	1,555	1,588	2,066	2,251	2,564
Marieville	1,306	1,587	1,748	1,986	2,394
St. Tite	991	1,438	1,783	1,969	2,385
Acton Vale	1,175	1,402	1,549	1,753	2,366
Montreal E.	–	210	1,776	2,242	2,355
La Malbaie	826	1,449	1,883	2,408	2,324
Priceville	–	–	–	2,310	2,321
Maniwaki	–	–	–	1,720	2,320
Ste. Rose	1,154	1,480	1,811	1,661	2,292
Almaville	–	–	1,174	2,010	2,282
Black Lake	–	2,645	2,656	2,167	2,276
St. Alexis-de-la-Grande Baie	–	1,355	1,735	1,790	2,230
Pointe-à-Gatineau	1,583	1,751	1,919	2,282	2,230
Terrebonne	1,822	1,990	2,056	1,955	2,209
St. Joseph (Richelieu)	647	1,416	1,658	1,869	2,207
Trois Pistoles	–	–	1,454	1,837	2,176
Timiskaming	–	–	–	1,855	2,168
La Sarre	–	–	–	–	2,167
St. Raymond	1,272	1,653	1,693	1,772	2,157
Lennoxville	1,120	1,211	1,554	1,927	2,150
St. Marc-des-Carrières	296	1,224	1,492	1,997	2,118
Saindon	–	–	1,793	2,355	2,115
Dorval	481	1,005	1,466	2,052	2,048
Cabano	–	–	–	2,187	2,031
Courville	–	910	1,293	1,678	2,011
Beloeil	–	1,501	1,418	1,434	2,008
Hampstead	–	–	53	594	1,974
Huntingdon	1,122	1,265	1,401	1,619	1,952
St. Georges E. (Beauce)	–	1,410	1,058	1,543	1,945
L'Epiphanie	–	–	1,199	1,705	1,941
La Providence	819	894	1,078	1,241	1,924
St. Joseph (Beauce)	1,117	1,440	1,445	1,625	1,892
Arthabaska	995	1,458	1,234	1,608	1,883
Pont Rouge	–	–	1,419	1,353	1,865
Chandler	–	–	1,756	1,741	1,858
L'Assomption	1,605	1,747	1,320	1,576	1,829
Greenfield Park	–	–	1,112	1,610	1,819
Ste. Anne-de-Beaupré	–	2,381	1,648	1,901	1,783
Quebec—con.					
L'Abord-à-Plouffe	–	–	1,011	1,227	1,773
Ste. Marie	–	–	1,311	1,598	1,736
Lac-au-Saumon	–	1,171	1,354	1,779	1,703
Bedford	1,364	1,432	1,669	1,570	1,697
Bromptonville	–	1,239	2,603	1,527	1,672
Bernierville	721	628	751	946	1,638
St. Jacques	–	–	1,332	1,529	1,634
St. Gabriel-de-Brandon	1,199	1,602	1,667	1,530	1,632
St. Félicien	–	581	1,306	1,599	1,603
St. Benoît Joseph Labre	–	1,070	1,416	1,648	1,593
St. Eustache	1,079	996	1,098	1,187	1,564
Rivière-du-Moulin	–	–	738	1,040	1,561
Baie Comeau	–	–	–	–	1,548
Bourlamaque	–	–	–	–	1,545
Causapscal	–	–	–	1,390	1,545
Ste. Anne-de-Chicoutimi	516	657	838	1,102	1,540
Warwick	790	928	961	987	1,504
St. Eustache-sur-le-Lac	–	–	–	215	1,472
St. Jérôme	498	719	923	1,235	1,469
Montreal S.	–	790	1,030	1,164	1,441
St. Rémi	1,080	1,021	1,135	1,201	1,431
Châteauguay	–	–	881	1,067	1,425
Chambly Bassin	849	900	1,068	1,287	1,423
Rock Island	615	861	1,442	1,424	1,395
Duparquet	–	–	–	–	1.384
Laurentides	934	1,128	1,150	1,284	1,342
Disraeli	1,018	1,606	1,646	1,437	1,338
Danville	1,017	1,331	1,290	1,354	1,332
Cap Chat	–	–	–	1,139	1,329
St. Casimir	–	–	1,457	1,316	1,307
Pierreville	1,108	1,363	1,394	1,352	1,302
Thurso	525	601	538	1,292	1,295
Mistassini	–	–	–	970	1,294
Dorion	275	631	833	1,155	1,292
Scotstown	791	933	987	1,189	1,273
Montebello	795	954	977	1,501	1,266
St. Pascal	–	–	–	–	1,265
Baie-de-Shawinigan	–	1,024	1,213	1,316	1,255
St. Pacôme	–	–	–	1,235	1,254
Beauceville E.	–	–	–	975	1,251
Rawdon	–	–	1,042	1,066	1,236
Masson	1,012	1,034	950	2,015	1,226
Rigaud	779	856	939	1,099	1,222
St. Césaire	865	941	985	1,051	1,209
Chambly Canton	957	857	839	955	1,185
L'Enfant Jésus	–	–	–	1,066	1,175
Charlemagne	–	776	829	813	1,150
Princeville	742	752	869	980	1,145
St. Félix-de-Valois	–	–	–	896	1,130
Sutton	691	986	923	967	1,118
Bic	–	–	912	1,020	1,117
McMasterville	–	–	612	819	1,097
Pointe-au-Pic	537	617	703	961	1,083
St. Joseph-de-la-Rivière Bleue	–	–	864	1,111	1,082
Deschaillons-sur-St. Laurent	–	–	–	–	1,078
Fort Coulonge	482	811	973	1,130	1,072
St. Jovite	–	–	862	981	1,059
Boucherville	940	1,097	934	883	1,047
Nouveau-Salaberry	–	–	606	805	1,043

5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, 1941, Compared with Census Years 1901-31—continued

Province and Urban Centre	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.
Quebec—conc.					
Contrecoeur	–	624	659	794	1,043
Chambord	–	–	–	–	1,029
Normandin	–	–	–	773	1,029
Notre-Dame-d' Hébertville	537	655	719	933	1,025
Beebe Plain	477	808	921	1,053	1,024
Papineauville	772	1,015	884	954	1,023
St. Joseph (St. Hyacinthe)	352	514	540	783	1,021
St. Emilien	–	–	–	646	1,018
Notre-Dame-de-Portneuf	–	–	877	1,017	1,015
La Pérade	–	–	745	926	1,014
St. Pie	–	768	960	858	1,009
Ville-Marie	502	850	840	1,049	1,001
Ontario—					
Timmins	–	–	3,843	14,200	28,790
Oshawa	4,394	7,436	11,940	23,439	26,813
Sault Ste. Marie	7,169	14,920	21,092	23,082	25,794
Peterborough	12,886	18,360	20,994	22,327	25,350
Port Arthur	3,214	11,220	14,886	19,818	24,426
Guelph	11,496	15,175	18,128	21,075	23,273
Niagara Falls	5,702	9,248	14,764	19,046	20,589
Sarnia	8,176	9,947	14,877	18,191	18,734
Chatham	9,068	10,770	13,256	14,569	17,369
St. Thomas	11,485	14,054	16,026	15,430	17,132
Stratford	9,959	12,946	16,094	17,742	17,038
Belleville	9,117	9,876	12,206	13,790	15,710
North Bay	2,530	7,737	10,692	15,528	15,599
Galt	7,866	10,299	13,216	14,006	15,346
Cornwall	6,704	6,598	7,419	11,126	14,117
Owen Sound	8,776	12,558	12,190	12,839	14,002
Welland	1,863	5,318	8,654	10,709	12,500
Woodstock	8,833	9,320	9,935	11,146	12,461
Forest Hill	–	–	–	5,207	11,757
Brockville	8,940	9,374	10,043	9,736	11,342
Pembroke	5,156	5,626	7,875	9,368	11,159
Orillia	4,907	6,828	7,631	8,183	9,798
Barrie	5,949	6,420	6,936	7,776	9,725
New Toronto	209	686	2,669	7,146	9,504
Waterloo	3,537	4,359	5,883	8,095	9,025
Lindsay	7,003	6,964	7,620	7,505	8,403
Trenton	4,217	3,988	5,902	6,276	8,323
Mimico	437	1,373	3,751	6,800	8,070
Eastview	–	3,169	5,324	6,686	7,966
Kenora	5,202	6,158	5,407	6,766	7,745
Smiths Falls	5,155	6,370	6,790	7,108	7,159
Port Colborne	1,253	1,624	3,415	6,503	6,993
Swansea	–	–	–	5,031	6,988
Midland	3,174	4,663	7,016	6,920	6,800
Preston	2,308	3,883	5,423	6,280	6,704
Fort Erie	2,246	2,916	3,947	5,904	6,595
Collingwood	5,755	7,090	5,882	5,809	6,270
Hawkesbury	4,150	4,400	5,544	5,177	6,263
Leaside	–	–	325	938	6,183
Simcoe	2,627	3,227	3,953	5,226	6,037
Brampton	2,748	3,412	4,527	5,532	6,020
Cobourg	4,239	5,074	5,327	5,834	5,973
Whitby	2,110	2,248	3,957	5,046	5,904
Fort Frances	1,163	1,611	3,109	5,470	5,897
Leamington	2,451	2,652	3,675	4,902	5,858
Ingersoll	4,573	4,763	5,150	5,233	5,782
Parry Sound	2,884	3,429	3,546	3,512	5,765
Weston	1,083	1,875	3,166	4,723	5,740
Renfrew	3,153	3,846	4,906	5,296	5,511
Thorold	1,979	2,273	4,825	5,092	5,305
Dundas	3,173	4,299	4,978	5,026	5,276
Long Branch	–	–	–	3,962	5,172
Port Hope	4,188	5,092	4,456	4,723	5,055
Wallaceburg	2,763	3,438	4,006	4,326	4,986
Ontario—con.					
Riverside	–	–	1,155	4,432	4,878
Paris	3,229	4,098	4,368	4,137	4,637
Sturgeon Falls	1,418	2,199	4,125	4,234	4,576
Goderich	4,158	4,522	4,107	4,491	4,557
Penetanguishene	2,422	3,568	4,037	4,035	4,521
Perth	3,588	3,588	3,790	4,099	4,458
Carleton Place	4,059	3,621	3,841	4,105	4,305
Oakville	1,643	2,372	3,298	3,857	4,115
Bowmanville	2,731	2,814	3,233	4,080	4,113
Gananoque	3,526	3,804	3,604	3,592	4,044
Dunnville	2,105	2,861	3,224	3,405	4,028
Newmarket	2,125	2,996	3,626	3,748	4,026
Tillsonburg	2,241	2,758	2,974	3,385	4,002
Picton	3,698	3,564	3,356	3,580	3,901
Arnprior	4,152	4,405	4,077	4,023	3,895
Burlington	1,119	1,831	2,709	3,046	3,815
Copper Cliff	2,500	3,082	2,597	3,173	3,732
St. Marys	3,384	3,388	3,847	3,802	3,635
Kapuskasing	–	–	926	3,819	3,431
Napanee	3,143	2,807	3,038	3,497	3,405
Hanover	1,392	2,342	2,781	3,077	3,290
Prescott	3,019	2,801	2,636	2,984	3,223
Portsmouth	1,827	1,786	2,351	2,741	3,135
Hespeler	2,457	2,368	2,777	2,752	3,058
New Liskeard	–	2,108	2,268	2,880	3,019
Campbellford	2,485	3,051	2,890	2,744	3,018
Strathroy	2,933	2,823	2,691	2,964	3,016
Listowel	2,693	2,289	2,477	2,676	3,013
Merritton	1,710	1,670	2,544	2,523	2,993
Geraldton	–	–	–	–	2,979
Humberstone	–	–	1,524	2,490	2,963
Amherstburg	2,222	2,560	2,769	2,759	2,853
Cochrane	–	1,715	2,655	3,963	2,844
Fergus	1,396	1,534	1,796	2,594	2,832
Petrolia	4,135	3,518	3,148	2,596	2,801
Huntsville	2,152	2,358	2,246	2,817	2,800
Aurora	1,590	1,901	2,307	2,587	2,726
Orangeville	2,511	2,340	2,187	2,614	2,718
Walkerton	2,971	2,601	2,344	2,431	2,679
Meaford	1,916	2,811	2,650	2,624	2,662
Blind River	2,656	2,558	1,843	2,805	2,619
Georgetown	1,313	1,583	2,061	2,288	2,562
Almonte	3,023	2,452	2,426	2,415	2,543
Kincardine	2,077	1,956	2,077	2,465	2,507
Aylmer	2,204	2,102	2,194	2,283	2,478
Tecumseh	–	–	978	2,129	2,412
Cobalt	–	5,638	4,449	3,885	2,376
Bracebridge	2,479	2,776	2,451	2,436	2,341
Grimsby	1,001	1,669	2,004	2,198	2,331
Kingsville	1,537	1,427	1,783	2,174	2,317
Haileybury	–	3,874	3,743	2,813	2,268
Coniston	–	–	–	–	2,245
Alexandria	1,911	2,323	2,195	2,006	2,175
Port Credit	–	–	1,123	1,635	2,160
Tilbury	1,012	1,368	1,673	1,992	2,155
Gravenhurst	2,146	1,624	1,478	1,864	2,122
Acton	1,484	1,720	1,722	1,855	2,063
Delhi	823	825	733	1,121	2,062
Rockland	1,998	3,397	3,496	2,118	2,040
Wingham	2,392	2,238	2,092	1,959	2,030
Elmira	1,060	1,782	2,016	2,170	2,012
Mattawa	1,400	1,524	1,462	1,631	1,971
Port Dover	1,177	1,138	1,462	1,707	1,968
Milton	1,372	1,654	1,873	1,839	1,964
Blenheim	1,653	1,387	1,565	1,737	1,952
Ridgetown	2,405	1,954	1,855	1,952	1,944
Essex	1,391	1,353	1,588	1,954	1,935
Clinton	2,547	2,254	2,018	1,789	1,896
Mount Forest	2,019	1,839	1,718	1,801	1,892
Mitchell	1,945	1,766	1,800	1,588	1,777
Sioux Lookout	–	550	1,127	2,088	1,756
Wiarton	2,443	2,266	1,726	1,949	1,749

5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, 1941, Compared with Census Years 1901-31—continued

Province and Urban Centre	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.
Ontario—con.					
Alliston	1,256	1,279	1,376	1,355	1,733
Port Dalhousie	1,125	1,152	1,492	1,547	1,723
Chesley	1,734	1,734	1,708	1,699	1,701
Durham	1,422	1,581	1,494	1,750	1,700
Seaforth	2,245	1,983	1,829	1,686	1,668
Dresden	1,613	1,551	1,339	1,529	1,662
Brighton	1,378	1,320	1,411	1,580	1,651
Cardinal	1,378	1,111	1,241	1,319	1,645
Capreol	–	–	1,287	1,684	1,641
Dryden	140	715	1,019	1,326	1,641
Southampton	1,636	1,685	1,537	1,489	1,600
Exeter	1,792	1,555	1,442	1,666	1,589
Morrisburg	1,693	1,696	1,444	1,420	1,575
Forest	1,553	1,445	1,422	1,480	1,570
Niagara	1,258	1,318	1,357	1,228	1,541
Keewatin	1,156	1,242	1,327	1,422	1,481
Rockcliffe Park	–	–	–	951	1,480
Larder Lake	–	–	–	–	1,464
Hagersville	1,020	1,106	1,169	1,385	1,455
Vankleek Hill	1,674	1,577	1,499	1,380	1,435
Palmerston	1,850	1,665	1,523	1,543	1,418
Uxbridge	1,657	1,433	1,456	1,325	1,406
New Hamburg	1,208	1.484	1,351	1,436	1,402
Caledonia	801	952	1,223	1,396	1,401
Port Elgin	1,313	1,235	1,291	1,305	1,395
Chippawa	460	707	1,137	1,266	1,385
Point Edward	780	874	1,258	1,362	1,363
Lakefield	1,244	1,397	1,189	1,332	1,349
Richmond Hill	629	652	1,055	1,295	1,345
Tweed	1,168	1,368	1,339	1,271	1,343
Waterford	1,122	1,083	1,123	1,213	1,342
Thessalon	1,205	1,945	1,651	1,632	1,316
Beamsville	832	1,096	1,256	1,203	1,309
Harriston	1,637	1,491	1,263	1,296	1,305
Iroquois Falls	–	–	1,178	1,476	1,302
Norwich	1,269	1,112	1,176	1,158	1,268
Englehart	–	670	759	1,210	1,262
Deseronto	3,527	2,013	1,847	1,476	1,261
Stouffville	1.223	1,034	1,053	1,155	1,253
Elora	1,187	1,197	1,136	1,195	1,247
Port Perry	1,465	1,148	1,143	1,163	1,245
Kemptville	1,523	1,192	1,204	1,286	1,232
Rainy River	–	1,578	1,444	1,402	1,205
Markham	967	909	1,012	1,008	1,204
Barry's Bay	–	–	–	–	1,198
Madoc	1,157	1,058	1,058	1,059	1,188
Port Stanley	552	891	973	816	1,177
Harrow	–	–	–	989	1,166
Fenelon Falls	1,132	1,053	1,031	963	1,158
Frankford	–	–	786	852	1,144
L'Original	1,026	1,347	1,298	1,121	1,118
Havelock	984	1,436	1,268	1,173	1,113
Marmora	961	866	948	996	1,106
Bancroft	554	625	768	911	1,094
Eganville	1,107	1,189	1,015	1.020	1,088
Little Current	728	1,208	923	1,101	1,088
Stayner	1,225	1,039	972	1,019	1,085
Watford	1,279	1,092	1,059	979	1,076
Chesterville	932	883	967	1,012	1,067
Tavistock	403	981	1,011	1,029	1,066
Sutton	646	753	789	788	1,051
Winchester	1,101	1,143	1,126	1,027	1,049
Woodbridge	604	607	672	812	1,044
Wellington	652	785	824	966	1,036
Bradford	984	946	961	972	1,033
Victoria Harbour	989	1,616	1,463	1,128	1,026
Casselman	707	956	977	995	1,021
Milverton	698	826	951	983	1,015
Stoney Creek	–	–	–	877	1,007
Shelburne	1,188	1,113	1,072	1,077	1,005
Ontario—conc.					
Cache Bay	384	889	926	1,151	1,004
Bobcaygeon	914	1,000	1,095	991	1,002
Fonthill	–	–	–	863	1,000
Manitoba—					
St. Boniface	2,019	7,483	12,821	16,305	18,157
Brandon	5,620	13,839	15,397	17,082	17,383
Portage la Prairie	3,901	5,892	6,766	6,597	7,187
Transcona	–	–	4,185	5,747	5,495
Selkirk	2,188	2,977	3,726	4,486	4,915
Dauphin	1,135	2,815	3,885	3,971	4,662
The Pas	–	–	1,858	4,030	3,181
Neepawa	1,418	1,864	1,887	1,910	2,292
Brooklands	–	–	–	2,628	2,240
Minnedosa	1,052	1,483	1,505	1,680	1,636
Virden	901	1,550	1,361	1,590	1,619
Carman	1,439	1,271	1,591	1,418	1,455
Morden	1,522	1,130	1,268	1,416	1,427
Souris	839	1,854	1,710	1,661	1,346
Beauséjour	–	847	994	1,139	1,161
Swan River	–	574	903	968	1,129
Killarney	585	1,010	871	1,003	1,051
Stonewall	589	1,005	1,112	1,031	1,020
Saskatchewan—					
Moose Jaw	1,558	13,823	19,285	21,299	20,753
Prince Albert	1,785	6,254	7,352	9,905	12,508
Weyburn	113	2,210	3,193	5,002	6,179
Swift Current	121	1,852	3,518	5,296	5,594
Yorkton	700	2,309	5,151	5,027	5,577
North Battleford	–	2,105	4,108	4,533	4,745
Melville	–	1,816	2,808	3,891	4,011
Estevan	141	1,981	2,290	2,936	2,774
Melfort	–	599	1,746	1,809	2,005
Biggar	–	315	1,535	2,369	1,930
Kamsack	–	473	2,002	2,087	1,792
Humboldt	–	859	1,822	1,899	1,767
Shaunavon	–	–	1,146	1,761	1,603
Rosctown	–	317	865	1,553	1,470
Assiniboia	–	–	1,006	1,454	1,349
Indian Head	768	1,285	1,439	1,438	1,349
Nipawin	–	–	–	562	1,344
Battleford	609	1,335	1,229	1,096	1,317
Tisdale	–	250	783	1,069	1,237
Wilkie	–	537	778	1,222	1,232
Canora	–	435	1,230	1,179	1,200
Rosthern	413	1,172	1,074	1,412	1,149
Watrous	–	781	1,101	1,303	1,138
Gravelbourg	–	–	1,106	1,137	1,130
Moosomin	868	1,143	1,099	1,119	1,096
Maple Creek	382	936	1,002	1,154	1,085
Wynyard	–	515	849	1,042	1,080
Lloydminster	–	663	755	1,516	1,624[1]
Alberta—					
Lethbridge	2,072	8,050	11,097	13,489	14,612
Medicine Hat	1,570	5,608	9,634	10,300	10,571
Red Deer	323	2,118	2,328	2,344	2,924
Drumheller	–	–	2,499	2,987	2,748
Camrose	–	1,586	1,892	2,258	2,598
Wetaskiwin	550	2,411	2,061	2,125	2,318
Raymond	–	1,465	1,394	1,849	2,089
Macleod	796	1,844	1,723	1,447	1,912
Coleman	–	1,557	1,590	1,704	1,870
Cardston	639	1,207	1,612	1,672	1,864
Blairmore	231	1,137	1,552	1,629	1,731
Grande Prairie	–	–	1,061	1,464	1,724
Vegreville	–	1,029	1,479	1,659	1,696
Hanna	–	–	1,364	1,490	1,622

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[1] Includes 572 in Alberta.

5.—Urban Centres Having Populations of 1,000 to 30,000, by Provinces, 1941, Compared with Census Years 1901-31—concluded

Province and Urban Centre	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.
Alberta—conc.					
Lacombe	499	1,029	1,133	1,259	1,603
Edson	–	497	1,138	1,547	1,499
High River	153	1,182	1,198	1,459	1,430
Vermilion	–	625	1,272	1,270	1,408
Olds	218	917	764	1,056	1,337
Taber	–	1,400	1,705	1,279	1,331
Ponoka	151	642	712	836	1,306
Stettler	–	1,444	1,416	1,219	1,295
Claresholm	–	809	963	1,156	1,265
Innisfail	317	602	941	1,024	1,223
Magrath	424	995	1,069	1,224	1,207
Redcliffe	–	220	1,137	1,192	1,111
St. Paul	–	–	869	938	1,018
British Columbia—					
New Westminster	6,499	13,199	14,495	17,524	21,967
Trail	1,360	1,460	3,020	7,573	9,392
North Vancouver	365	8,196	7,652	8,510	8,914
Prince Rupert	–	4,184	6,393	6,350	6,714
Nanaimo	6,130	6,254	6,304	6,745	6,635
Kamloops	–	3,772	4,501	6,167	5,959
British Columbia—conc.					
Nelson	5,273	4,476	5,230	5,992	5,912
Vernon	802	2,671	3,685	3,937	5,209
Kelowna	261	1,663	2,520	4,655	5,118
Port Alberni	–	–	1,056	2,356	4,584
Chilliwack	277	1,657	1,767	2,461	3,675
Rossland	6,156	2,826	2,097	2,848	3,657
Cranbrook	1,196	3,090	2,725	3,067	2,568
Fernie	–	3,146	2,802	2,732	2,545
Duncan	–	–	1,178	1,843	2,189
Revelstoke	1,600	3,017	2,782	2,736	2,106
Prince George	–	–	2,053	2,479	2,027
Mission	–	–	–	1,314	1,957
Alberni	–	–	540	702	1,807
Courtenay	–	–	810	1,219	1,737
Ladysmith	746	2,517	1,967	1,443	1,706
Port Coquitlam	–	–	1,178	1,312	1,539
Port Moody	–	–	1,030	1,260	1,512
Grand Forks	1,012	1,577	1,469	1,298	1,259
Creston	–	–	–	695	1,153
Yukon—					
Dawson	9,142	3,013	975	819	1,043

Section 2.—Movement of Population

A short review of the rural and urban movement of population in 1941-44, the migration between the nine provinces of Canada during the decade 1931-41, and the estimated net civilian immigration by provinces, 1941-44, appears at pp. 120-122 of the 1945 Year Book.

Section 3.—Area and Density of Population

The area and density of the population per square mile is given by locality in the following tables.

6.—Area and Density of Population, by Provinces and Territories, Census Years 1911-41

Province or Territory	Land Area in Sq. Miles	Population, 1911[1]		Population, 1921		Population, 1931		Population, 1941	
		Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile
Prince Edward Island	2,184	93,728	42·92	88,615	40·57	88,038	40·31	95,047	43·52
Nova Scotia	20,743	492,338	23·74	523,837	25·25	512,846	24·72	577,962	27·86
New Brunswick	27,473	351,889	12·81	387,876	14·12	408,219	14·86	457,401	16·65
Quebec	523,860	2,005,776	3·83	2,360,510[2]	4·51	2,874,662	5·49	3,331,882	6·36
Ontario	363,282	2,527,292	6·96	2,933,662	8·08	3,431,683	9·45	3,787,655	10·43
Manitoba	219,723	461,394	2·10	610,118	2·78	700,139	3·19	729,744	3·32
Saskatchewan	237,975	492,432	2·07	757,510	3·18	921,785	3·87	895,992	3·77
Alberta	248,800	374,295	1·50	588,454	2·37	731,605	2·94	796,169	3·20
British Columbia	359,279	392,480	1·09	524,582	1·46	694,263	1·93	817,861	2·28
Canada (Exclusive of the Territories)	**2,003,319**	**7,191,624**	**3·59**	**8,775,164**[2]	**4·38**	**10,363,240**	**5·17**	**11,489,713**	**5·74**
Yukon	205,346	8,512	0·04	4,157	0·02	4,230	0·02	4,914	0·02
Northwest Territories	1,253,438	6,507	0·01	8,143	0·01	9,316	0·01	12,028	0·01
Canada	**3,462,103**	**7,206,643**	**2·08**	**8,787,949**[2]	**2·54**	**10,376,786**	**3·00**	**11,506,655**	**3·32**

[1] The populations of Ontario, Quebec, Manitoba and the Northwest Territories were adjusted for 1911 according to the provisions of the Boundaries Extension Acts, 1912. [2] Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for Canada includes 485 members of the Royal Canadian Navy who were recorded separately in 1921.

7.—Area and Density of Population, by Counties or Census Divisions, 1941

Province and County	Land Area in Sq. Miles	Population, 1941	
		Total	Per Sq. Mile
Canada	**3,462,103**	**11,506,655**	**3·32**
P.E. Island	**2,184**	**95,047**	**43·52**
Kings	641	19,415	30·29
Prince	778	34,490	44·33
Queens	765	41,142	53·78
Nova Scotia	**20,743**	**577,962**	**27·86**
Annapolis	1,285	17,692	13·77
Antigonish	541	10,545	19·49
Cape Breton	972	110,703	113·89
Colchester	1,451	30,124	20·76
Cumberland	1,683	39,476	23·46
Digby	970	19,472	20·07
Guysborough	1,611	15,461	9·60
Halifax	2,063	122,656	59·46
Hants	1,229	22,034	17·93
Inverness	1,409	20,573	14·60
Kings	842	28,920	34·35
Lunenburg	1,169	32,942	28·18
Pictou	1,124	40,789	36·29
Queens	983	12,028	12·24
Richmond	489	10,853	22·19
Shelburne	979	13,251	13·54
Victoria	1,105	8,028	7·27
Yarmouth	838	22,415	26·75
New Brunswick	**27,473**	**457,401**	**16·65**
Albert	681	8,421	12·37
Carleton	1,300	21,711	16·70
Charlotte	1,243	22,728	18·28
Gloucester	1,854	49,913	26·92
Kent	1,734	25,817	14·89
Kings	1,374	21,573	15·70
Madawaska	1,262	28,176	22·33
Northumberland	4,671	38.485	8·24
Queens	1,373	12,775	9·30
Restigouche	3,242	33,075	10·20
St. John	611	68,827	112·65
Sunbury	1,079	8,296	7·69
Victoria	2,074	16,671	8·04
Westmorland	1,430	64,486	45·10
York	3,545	36,447	10·28
Quebec	**523,860**	**3,331,882**	**6·36**
Abitibi[1]	76,725	67,689	0·88
Argenteuil	783	22,670	28·95
Arthabaska	666	30,039	45·10
Bagot	346	17,642	50·99
Beauce	1,128	48,073	42·62
Beauharnois	147	30,269	205·91
Bellechasse	653	23,676	36·26
Berthier	1,816	21,233	11·69
Bonaventure	3,464	39,196	11·32
Brome	488	12,485	25·58
Chambly	138	32,454	235·17
Champlain	8,586	68,057	7·93
Charlevoix	2,215	25,662	11·59
Charlevoix E.	*719*	*13,077*	*18·19*
Charlevoix W.	*1,496*	*12,585*	*8·41*
Châteauguay	265	14,443	54·50
Chicoutimi	17,800	78,881	4·43
Compton	933	22,957	24·61
Deux-Montagnes	279	16,746	60·02
Dorchester	842	29,869	35·47
Drummond	532	36,683	68·95
Frontenac	1,370	28,596	20·87
Gaspe	4,648	55,208	11·88
Gaspe E.	*2,348*	*33,871*	*14·43*
Gaspe W.	*2,198*	*12,397*	*5·64*
Quebec—conc.			
Madeleine Islands	*102*	*8,940*	*87·65*
Hull	2,571	71,188	27·69
Gatineau	*2,432*	*29,754*	*12·23*
Hull	*139*	*41,434*	*298·09*
Huntingdon	361	12,394	34·33
Iberville	198	10,273	51·88
Joliette	2,506	31,713	12·65
Kamouraska	1,038	25,535	24·60
Labelle	2,392	22,974	9·60
Lac St-Jean	23,723	64,306	2·71
Lac St-Jean E.	*905*	*25,245*	*27·90*
Lac St-Jean W.	*22,818*	*39,061*	*1·71*
Laprairie	170	13,730	80·76
L'Assomption	247	17,543	71·02
Lévis	272	38,119	140·14
L'Islet	773	20,589	26·64
Lotbinière	726	26,664	36·73
Maskinongé	2,378	18,206	7·66
Matane	3,382	55,414	16·38
Matane	*1,631*	*25,488*	*15·63*
Matapédia	*1,751*	*29,926*	*17·09*
Mégantic	780	40,357	51·74
Missisquoi	375	21,442	57·18
Montcalm	3,894	15,208	3·91
Montmagny	630	22,049	35·00
Montmorency	2,198	18,602	8·46
Montmorency No. 1	*2,126*	*14,309*	*6·73*
Montmorency No. 2	*72*	*4,293*	*59·63*
Montreal and Jesus Islands	294	1,138,431	3,872·21
Jesus Island	*93*	*21,631*	*232·59*
Montreal Island	*201*	*1,116,800*	*5,556·22*
Napierville	149	8,329	55·90
Nicolet	626	30,085	48·06
Papineau	1,581	27,551	17·43
Pontiac	9,560	19,852	2·08
Portneuf	1,440	38,996	27·08
Quebec	2,745	202,882	73·91
Richelieu	221	23,691	107·20
Richmond	544	27,493	50·54
Rimouski	2,089	44,233	21·17
Rouville	243	15,842	65·19
Saguenay	315,176	29,419	0·09
Shefford	567	33,387	58·88
Sherbrooke	238	46,574	195·69
Soulanges	136	9,328	68·59
Stanstead	432	27,972	64·75
St. Hyacinthe	278	31,645	113·83
St. Jean	205	20,584	100·41
St. Maurice	1,820	80,352	44·15
Témiscamingue	8,977	40,471	4·51
Témiscouata	1,874	57,675	30·78
Rivière-du-Loup	*723*	*34,493*	*47·71*
Témiscouata	*1,151*	*23,182*	*20·14*
Terrebonne	782	46,864	59·93
Vaudreuil	201	13,170	65·52
Verchères	199	14,214	71·43
Wolfe	680	17,492	25·72
Yamaska	365	16,516	45·25
Ontario	**363,282**	**3,787,655**	**10·43**
Algoma	19,320	52,002	2·69
Brant	421	56,695	134·67
Bruce	1,650	41,680	25·26
Carleton	947	202,520	213·85

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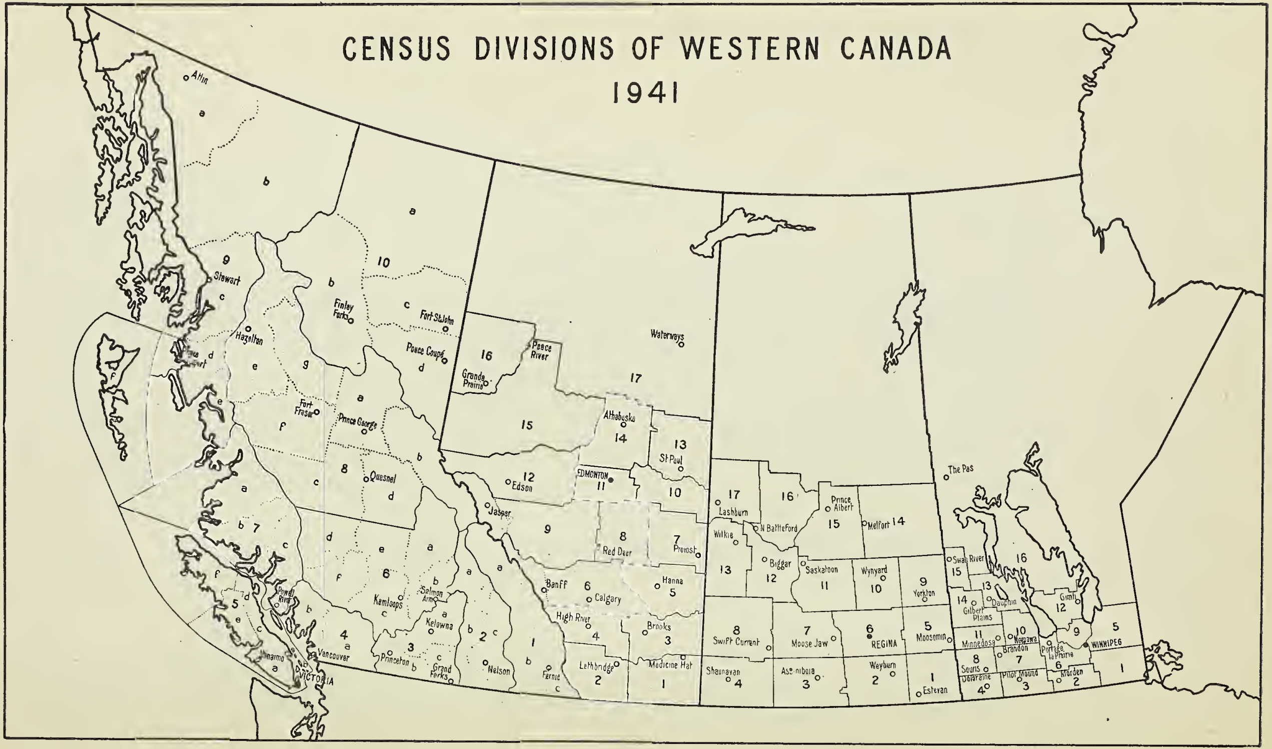
[1] Includes Districts of Abitibi and Mistassini.

CENSUS DIVISIONS OF WESTERN CANADA
1941



Atlin
Stewart
Hazelton
Finlay Forks
Fort St. John
Pouce Coupé
Fort Fraser
Prince George
Quesnel
Kamloops
Salmon Arm
Kelowna
Princeton
Grand Forks
Nelson
Fernie
Powell River
Nanaimo
Vancouver
VICTORIA
Grande Prairie
Peace River
Waterways
Athabaska
St Paul
EDMONTON
Edson
Jasper
Red Deer
Provost
Hanna
Banff
Calgary
High River
Brooks
Lethbridge
Medicine Hat
Lashburn
N Battleford
Wilkie
Biggar
Saskatoon
Prince Albert
Melfort
Wynyard
Yorkton
Swift Current
Moose Jaw
REGINA
Moosomin
Shaunavon
Assiniboia
Weyburn
Estevan
The Pas
Swan River
Dauphin
Gilbert Plains
Gimli
Minnedosa
Neepawa
Brandon
Portage la Prairie
WINNIPEG
Souris
Deloraine
Pilot Mound
Morden

7.—Area and Density of Population, by Counties or Census Divisions, 1941—continued

Province and County or Division	Land Area in Sq. Miles	Population, 1941	
		Total	Per Sq. Mile
Ontario—conc.			
Cochrane	52,237	80,730	1·55
Dufferin	557	14,075	25·27
Dundas	384	16,210	42·21
Durham	629	25,215	40·09
Elgin	720	46,150	64·10
Essex	707	174,230	246·44
Frontenac	1,599	53,717	33·59
Glengarry	478	18,732	39·19
Grenville	463	15,989	34·53
Grey	1,708	57,160	33·47
Haldimand	488	21,854	44·78
Haliburton	1,486	6,695	4·51
Halton	363	28,515	78·55
Hastings	2,323	63,322	27·26
Huron	1,295	43,742	33·78
Kenora[1]	153,220	33,372	0·22
Kent	918	66,346	72·27
Lambton	1,124	56,925	50·65
Lanark	1,138	33,143	29·12
Leeds	900	36,042	40·05
Lennox and Addington	1,170	18,469	15·79
Lincoln	332	65,066	195·98
Manitoulin	1,588	10,841	6·83
Middlesex	1,240	127,166	102·55
Muskoka	1,585	21,835	13·78
Nipissing	7,560	43,315	5·73
Norfolk	634	35,611	56·17
Northumberland	734	30,786	41·94
Ontario	853	65,718	77·04
Oxford	765	50,974	66·63
Parry Sound	4,336	30,083	6·94
Peel	469	31,539	67·25
Perth	840	49,694	59·16
Peterborough	1,415	47,392	33·49
Prescott	494	25,261	51·14
Prince Edward	390	16,750	42·95
Rainy River	7,276	19,132	2·63
Renfrew	3,009	54,720	18·19
Russell	407	17,448	42·87
Simcoe	1,663	87,057	52·35
Stormont	412	40,905	99·28
Sudbury	18,058	80,815	4·48
Thunder Bay	52,471	85,200	1·62
Timiskaming	5,896	50,604	8·58
Victoria	1,348	25,934	19·24
Waterloo	516	98,720	191·32
Welland	387	93,836	242·47
Wellington	1,019	59,453	58·34
Wentworth	458	206,721	451·36
York	882	951,549	1,078·85
Manitoba	**219,723**	**729,744**	**3·32**
Division 1	4,281	27,813	6·50
Division 2	2,320	41,426	17·86
Division 3	2,577	24,781	9·62
Division 4	2,466	15,699	6·37
Division 5	5,256	48,424	9·21
Division 6	2,436	295,342	121·24
Division 7	2,578	36,669	14·22
Division 8	2,160	17,803	8·24
Division 9	1,217	47,277	38·85
Division 10	2,377	19,562	8·23
Division 11	2,914	26,637	9·14
Division 12	3,240	25,387	7·84
Division 13	3,324	26,033	7·83
Division 14	3,636	26,613	7·32
Division 15	2,304	12,059	5·23
Division 16	176,637	38,219	0·22
Saskatchewan	**237,975**	**895,992**	**3·77**
Division 1	5,944	34,171	5·75
Division 2	6,686	36,140	5·41
Division 3	7,646	38,648	5·05
Division 4	7,579	22,300	2·94
Division 5	5,760	51,022	8·86
Division 6	6,787	108,816	16·03
Division 7	7,471	53,852	7·21
Division 8	9,264	42,845	4·62
Division 9	5,010	62,334	12·44
Division 10	4,860	43,207	8·89
Division 11	5,979	80,012	13·38
Division 12	5,982	34,673	5·80
Division 13	6,848	36,346	5·31
Division 14	13,419	65,166	4·86
Division 15	8,190	89,036	10·87
Division 16	8,102	53,212	6·57
Division 17	6,913	33,173	4·80
Division 18	115,535	11,039	0·10
Alberta	**248,800**	**796,169**	**3·20**
Division 1	7,323	29,595	4·04
Division 2	6,342	58,563	9·23
Division 3	7,018	15,518	2·21
Division 4	6,079	29,383	4·83
Division 5	7,681	18,926	2·46
Division 6	11,709	146,990	12·55
Division 7	6,684	33,285	4·98
Division 8	6,510	67,630	10·39
Division 9	14,823	32,232	2·17
Division 10	6,180	58,807	9·52
Division 11	4,753	149,193	31·39
Division 12	11,601	17,431	1·50
Division 13	8,103	33,172	4·09
Division 14	8,731	47,899	5·49
Division 15	22,845	17,484	0·77
Division 16	11,100	30,349	2·73
Division 17	101,318	9,712	0·10
British Columbia	**359,279**	**817,861**	**2·28**
Division 1	15,984	21,345	1·34
a	6,934	3,442	0·50
b	6,567	11,280	1·72
c	2,483	6,623	2·67
Division 2	13,343	48,266	3·62
a	3,518	3,790	1·08
b	4,111	25,715	6·26
c	5,714	18,761	3·28
Division 3	10,729	51,605	4·81
a	4,425	30,306	6·85
b	3,638	15,840	4·35
c	2,666	5,459	2·05
Division 4	9,764	449,376	46·02
a	5,965	101,711	17·05
b	3,799	347,665	91·51
Division 5	13,206	150,407	11·39
a	2,512	112,231	44·68
b	182	3,145	17·28
c	940	14,139	15·04
d	1,740	12,855	7·39
e	3,476	3,250	0·93
f	4,356	4,787	1·10
Division 6	31,420	30,710	0·98
a	6,868	2,486	0·36
b	3,343	7,662	2·29
c	6,146	13,916	2·26
d	5,574	498	0·09
e	4,360	2,041	0·47
f	5,129	4,107	0·80

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[1] Includes District of Patricia.

7.—Area and Density of Population, by Counties or Census Divisions, 1941—concluded

Province and Division	Land Area in Sq. Miles	Population, 1941		Province and Division	Land Area in Sq. Miles	Population, 1941	
		Total	Per Sq. Mile			Total	Per Sq. Mile
British Columbia —continued				**British Columbia** —concluded			
Division 7	22,187	14,344	0·65	Division 9—conc.			
a	9,893	3,824	0·39	d	4,853	10,554	2·17
b	6,514	2,896	0·44	e	8,362	1,065	0·13
c	5,780	7,624	1·32	f	3,970	2,335	0·59
Division 8	71,985	25,276	0·35	Division 10	82,533	8,481	0·10
a	9,838	5,253	0·53	a	38,016	133	–
b	9,974	2,713	0·27	b	21,387	419	0·02
c	11,431	1,560	0·14	c	11,517	2,590	0·22
d	8,378	5,907	0·71	d	11,613	5,339	0·46
e	13,019	4,862	0·37				
f	10,799	3,546	0·33				
g	8,546	1,435	0·17	**Yukon**	**205,346**	**4,914**	**0·02**
Division 9	88,128	18,051	0·20				
a	20,668	833	0·04				
b	39,456	911	0·02				
c	10,819	2,353	0·22	**Northwest Territories**	**1,253,438**	**12,028**	**0·01**

8.—Densities of Population in Various Countries

NOTE.—In the past, this table has been based on census data. Owing to the incidence of the War and the postponement of regular census-taking in most countries, it was decided to substitute density figures based on estimated population in those cases marked with an asterisk (*), rather than give census data that is not representative of existing conditions. Total area is used, except in the cases of Canada, the Netherlands, Norway, Sweden and the United States, where figures of land area are available. SOURCE: Statistical Year Book of the League of Nations, 1942-44.

Country	Year	Persons per Sq. Mile	Country	Year	Persons per Sq. Mile
Netherlands*	1943	716·57	China*	1939	104·97
Belgium*	1943	711·99	United States of America* (not including Alaska)	1943	45·10
United Kingdom (England and Wales, Scotland and Northern Ireland*)	1940	507·24	Sweden*	1943	37·63
Japan	1940	495·72	Norway*	1940	23·67
German Reich	1939	381·98	Union of South Africa*	1943	23·04
Italy*	1941	372·07	Union of Soviet Socialist Republics	1939	20·85
India	1941	245·97	New Zealand*	1943	15·87
British Territory[1]	1941	341·88	Argentina*	1943	12·90
Poland*	1938	233·63	Southern Rhodesia*	1943	10·51
France*	1939	193·66	**Canada**	**1941**	**3·32**
Spain*	1943	135·86	Canada, exclusive of the Territories	1941	5·74
Eire*	1943	110·77	Australia*	1943	2·43

[1] Not including Burma.

Section 4.—Sex Distribution

The sex distribution of the Canadian people is characterized, as is that of any 'young' population, by a preponderance of males, although this condition has been greatly modified in recent times, especially since the rigid control of immigration following the First World War. In 1666, during the early years of settlement by the French-speaking immigrants, 63·3 p.c. of the population were males. In 1784, when the English-speaking immigration to Canada was commencing, there were 54,064 males and 50,759 females and by the middle of the nineteenth century there were 449,967 males to 440,294 females in Lower Canada, and 499,067 males to 452,937 females in the more newly settled Upper Canada. Since Confederation the newer sections of Canada—the west and the northwest—have shown the greatest excess of males.

From 1871 to 1941, for Canada as a whole, the percentage of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c.

9.—Sex Distribution of the Population, by Provinces and Territories, Census Years 1871-1941

Province or Territory	1871		1881		1891		1901	
	Male	Female	Male	Female	Male	Female	Male	Female
P.E. Island.......	47,121	46,900	54,729	54,162	54,881	54,197	51,959	51,300
Nova Scotia......	193,792	194,008	220,538	220,034	227,093	223,303	233,642	225,932
New Brunswick...	145,888	139,706	164,119	157,114	163,739	157,524	168,639	162,481
Quebec............	596,041	595,475	678,175	680,852	744,141	744,394	824,454	824,444
Ontario...........	828,590	792,261	978,554	948,368	1,069,487	1,044,834	1,096,640	1,086,307
Manitoba.........	12,864	12,364	35,123	27,137	84,342	68,164	138,504	116,707
Saskatchewan.....	–	–	–	–	–	–	49,431	41,848
Alberta...........	–	–	–	–	–	–	41,019	32,003
British Columbia.	20,694	15,553	29,503	19,956	63,003	35,170	114,160	64,497
Yukon............	–	–	–	–	–	–	23,084	4,135
N.W.T............	24,274	23,726	28,113	28,333	53,785	45,182	10,176	9,953
Canada.......	**1,869,264**	**1,819,993**	**2,188,854**	**2,135,956**	**2,460,471**	**2,372,768**	**2,751,708**	**2,619,607**

	1911		1921		1931		1941	
	Male	Female	Male	Female	Male	Female	Male	Female
P.E. Island.......	47,069	46,659	44,887	43,728	45,392	42,646	49,228	45,819
Nova Scotia......	251,019	241,319	266,472	257,365	263,104	249,742	296,044	281,918
New Brunswick...	179,867	172,022	197,351	190,525	208,620	199,599	234,097	223,304
Quebec............	1,012,815	992,961	1,179,651	1,180,859	1,447,326	1,427,336	1,672,982	1,658,900
Ontario...........	1,301,272	1,226,020	1,481,890	1,451,772	1,748,844	1,682,839	1,921,201	1,866,454
Manitoba.........	252,954	208,440	320,567	289,551	368,065	332,074	378,079	351,665
Saskatchewan.....	291,730	200,702	413,700	343,810	499,935	421,850	477,563	418,429
Alberta...........	223,792	150,503	324,208	264,246	400,199	331,406	426,458	369,711
British Columbia.	251,619	140,861	293,409	231,173	385,219	309,044	435,031	382,830
Yukon............	6,508	2,004	2,819	1,338	2,825	1,405	3,153	1,761
N.W.T............	3,350	3,157	4,204	3,939	5,012	4,304	6,700	5,328
Canada.......	**3,821,995**	**3,384,648**	**4,529,643**[1]	**4,258,306**	**5,374,541**	**5,002,245**	**5,900,536**	**5,606,119**

[1] Includes 485 members of the Royal Canadian Navy, who were recorded separately in 1921.

Immigration has influenced the sex distribution of the population, as between provinces, in widely different degree. In the older settlements of Quebec and parts of New Brunswick and Ontario, where the populations are of French basic stock, immigration has not played as great a part in upsetting the normal distribution of the sexes as it has in the other provinces. Even in Ontario immigrants from Continental European countries do not settle as readily and are not assimilated as completely as in the newer western provinces.

A characteristic of population distribution since 1911 has been the rapid growth of urban centres due to the far-reaching developments in manufacturing that have entirely changed the economic picture. Summary figures showing the disparity between the sexes in the matter of urban concentration in 1911, 1921, 1931 and 1941 in the total population are given in the following tabulation. Where the percentage of urban males is large the percentage of females is also large. Each decade emphasizes the greater opportunities for female employment in urban centres as compared with rural.

Item	*1911*	*1921*	*1931*	*1941*
Excess of all males over all females per 100 of total population..	6·07	3·09	3·59	2·56
Percentage of females in urban centres to all females...........	47·12	51·78	55·98	56·61
Percentage of males in urban centres to all males..............	43·91	47·41	51·57	52·18
Excess of urban females over urban males per 100 of urban population..	−2·54	1·32	0·52	1·52

Table **10** gives the position of Canada among other countries of the world in regard to masculinity.

10.—Masculinity of the Populations of Various Countries

Note.—The minus sign (−) indicates a deficiency of males.

Country	Year	Excess of Males over Females per 100 Population	Country	Year	Excess of Males over Females per 100 Population
Argentina....................	1914	7·22	Italy.........................	1936	−1·82
India..........................	1941	3·36	Finland......................	1930	−2·05
Canada......................	**1941**	**2·56**	German Reich..............	1939	−2·15
Eire...........................	1936	2·43	Norway.....................	1930	−2·49
Australia......................	1933	1·57	Northern Ireland............	1937	−2·66
New Zealand..................	1936	1·52	Poland.......................	1931	−2·71
Union of South Africa[1]........	1936	1·19	Czechoslovakia..............	1930	−3·01
Bulgaria......................	1934	0·49	Austria......................	1939	−3·11
United States.................	1940	0·34	Switzerland..................	1940	−3·30
Japan.........................	1940	0·02	France.......................	1940	−3·62
Netherlands...................	1930	−0·63	Scotland.....................	1931	−3·94
Sweden........................	1940	−0·80	Portugal.....................	1940	−4·01
Greece........................	1928	−0·85	Spain.........................	1940	−4·06
Chile..........................	1940	−0·88	U.S.S.R......................	1939	−4·19
Belgium......................	1930	−0·96	England and Wales..........	1931	−4·22
Denmark......................	1940	−1·14			

[1] White population only.

Section 5.—Age Distribution

The age distribution of a population is fundamental to most, if not all, other analyses, for the age factor influences employment, marriage, birth rates and death rates, education, immigration, criminology and a multitude of events and activities that are of great importance in the national life.

Immigration has a strong influence on age distribution: it does not directly affect the very young sections of the population except to a very small degree, but it immediately affects the age groups between the 'teens' and the 'twenties' and its effects are carried to the older groups as time goes by. Thus, the influence of the very heavy immigration of the early years of the century (1900-11) is indicated by the fact that, in 1901, 175·1 persons per 1,000 of the total population were in the age group 20-29 years and 130·5 persons per 1,000 in the group 30-39 years: a decade later, 190·3 per 1,000 were in the former group and 142·6 in the latter. Since immigration was cut down very severely after the outbreak of war in 1914, the influence of these earlier accretions to the population has crept through the upper age groups year by year· it has now reached those of the population in the 'fifties'.

11.—Male and Female Populations, by Age Periods, Census Years 1921-41

NOTE.—For comparable data for census years 1891–1911, see the 1943–44 Year Book, p. 95.

Age Group	1921			1931			1941		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 1 year...	105,941	103,725	209,666	102,930	99,738	202,668	109,165	105,635	214,800
1 year..........	104,562	103,209	207,771	102,879	101,486	204,365	99,921	96,600	196,521
2 years.........	105,801	104,144	209,945	111,910	109,668	221,578	113,693	110,157	223,850
3 "	108,415	106,203	214,618	113,021	111,110	224,131	107,526	104,653	212,179
4 "	108,671	106,878	215,549	112,432	109,241	221,673	103,598	100,906	204,504
Totals, Under 5 Years....	**533,390**	**524,159**	**1,057,549**	**543,172**	**531,243**	**1,074,415**	**533,903**	**517,951**	**1,051,854**
5- 9 years.....	528,663	520,031	1,048,694	572,507	560,242	1,132,749	529,092	516,728	1,045,820
10–14 "	461,282	451,805	913,087	542,930	531,121	1,074,051	556,304	544,573	1,100,877
15–19 "	403,235	398,545	801,780	525,250	514,341	1,039,591	565,212	554,823	1,120,035
20–24 "	350,971	360,198	711,169	463,722	447,463	911,185	517,956	514,470	1,032,426
25–29 "	347,622	338,852	686,474	409,976	376,305	786,281	488,340	478,650	966,990
30–34 "	343,237	309,608	652,845	368,135	340,701	708,836	431,591	412,255	843,846
35–39 "	342,300	290,066	632,366	359,081	329,382	688,463	396,453	363,101	759,554
40–44 "	286,451	240,651	527,102	347,763	298,336	646,099	348,616	327,929	676,545
45–49 "	236,884	198,129	435,013	321,513	263,698	585,211	332,503	302,643	635,146
50–54 "	195,133	166,811	361,944	267,332	221,349	488,681	315,866	275,838	591,704
55–59 "	148,133	132,163	280,296	199,160	167,865	367,025	275,234	231,658	506,892
60–64 "	126,397	112,881	239,278	156,912	137,685	294,597	218,557	188,594	407,151
65–69 "	90,615	81,381	171,996	120,695	110,439	231,134	162,517	145,207	307,724
70–74 "	60,579	56,846	117,425	88,581	83,019	171,600	111,152	105,949	217,101
75–79 "	35,583	35,767	71,350	50,017	48,612	98,629	67,200	68,495	135,695
80–84 "	18,136	19,465	37,601	23,877	25,294	49,171	34,083	37,431	71,514
85–89 "	7,142	8,236	15,378	8,665	10,464	19,129	12,621	15,015	27,636
90–94 "	1,800	2,380	4,180	2,051	2,881	4,932	2,805	3,937	6,742
95–99 "	412	565	977	417	656	1,073	457	770	1,227
100 or over.....	90	93	183	74	89	163	74	102	176
Not given......	11,588	9,674	21,262	2,711	1,060	3,771	Nil	Nil	–
Totals........	**4,529,643**	**4,258,306**	**8,787,949**	**5,374,541**	**5,002,245**	**10,376,786**	**5,900,536**	**5,606,119**	**11,506,655**

Between 1931 and 1941 a more pronounced general ageing of the population is shown owing to practically non-existent migration and a lower birth rate—factors that were emphasized during the depression years. In 1921 the number per 1,000 of total population between 40 and 59 years of age was 183·0; it was 201·1 in 1931 and 209·5 in 1941. Greater proportional increases, however, are shown by the group 60 years of age or over; this group represented 75·1 per 1,000 of the total population in 1921, 83·9 in 1931 and no less than 102·1 per 1,000 in 1941.

More detailed tables on this subject are given at pp. 94-96 of the 1943-44 edition of the Year Book.

Section 6.—Conjugal Condition

Next to the sex and age distribution of a population, that of conjugal condition is probably the most fundamental. Its incidence is twofold: 'vital' and 'economic and social'.

The vital basis lies in the influence of the marriage state on the fertility of a population and, from this angle, close analyses of conjugal condition, by age, are important. The ages of females (see Table 11), between 15 and 45 years have more significance than those of males; if the proportion of females in this group is small, the expected proportion of births will also be small. It has been shown that for the Canadian population the combined influences of age of the population, age of the married females, and proportion of females married has become steadily more favourable to the birth rate from 1871 to 1921 but that, since the latter date, the trend has been less favourable.

12.—Conjugal Condition of the Population, 15 Years of Age or Over, by Sex, Census Years 1911-41

Note.—Figures for censuses previous to 1911 are not comparable.

Year and Sex		Single		Married		Widowed		Divorced and Legally Separated		Total[1]
		No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.
1911	M.	1,161,088	45·0	1,326,959	51·5	88,716	3·4	2,087	0·1	2,597,133
	F.	765,092	34·8	1,247,761	56·8	178,961	8·2	2,255	0·1	2,201,780
1921	M.	1,173,730	39·2	1,697,145	56·7	119,571	4·0	3,664	0·1	2,994,720
	F.	881,771	32·0	1,630,636	59·2	236,283	8·6	3,726	0·1	2,752,637
1931	M.	1,519,844	41·0	2,032,691	54·9	148,851	4·0	4,048	0·1	3,713,221
	F.	1,148,977	34·0	1,937,458	57·3	288,530	8·5	3,392	0·1	3,378,579
1941	M.	1,703,528	39·8	2,363,528	55·2	170,743	4·0	42,770	1·0	4,281,237
	F.	1,328,489	33·0	2,292,478	56·9	354,378	8·8	51,399	1·3	4,026,867

[1] Includes conjugal condition not stated; percentages are based on stated condition.

In Canada as a whole there are more married males than married females. Other striking statistics of conjugal condition are the great preponderance of widows compared to widowers and the large and increasing numbers of divorced or legally separated persons.

Conjugal condition of the 1941 population 15 years of age or over, by provinces and sex, is shown at p. 102 of the 1945 Year Book.

Section 7.—Racial Origins

A population composed of divers racial stocks gives rise to political, economic and social problems quite different in nature from those of one with a small admixture of foreign elements, although, to the extent that certain racial stocks are more readily assimilated than others, the problems are mitigated. It is equally true that the different educational, moral, economic, religious and political backgrounds of a people of mixed origins lend variety and diversity to the national life.

The two basic stocks of the Canadian people are the French and the English: historically the French is much the older and, excepting for the Census of 1921, has exceeded in numbers any one of the basic British Isles stocks.

It will be seen from Table **13** that, at the time of Confederation, the largest of the groups comprising the British Isles races was the Irish and that the Irish and the Scottish together outnumbered the English by almost two to one. The English, however, exceeded the Irish by 1891, while the Scottish took second place in 1921. From 1881 to 1901, those of Irish origin increased only 3·3 p.c.: the smaller proportion of Irish to English and Scottish was due not alone to a decline in immigration but to their emigration from Canada. The relative gains from 1911 to 1921 of the British Isles races as a group brought them to over one-half (55·4 p.c.) of the total population. The English (with 28·9 p.c.) ranked first in 1921 of all races in Canada, the French were second (27·9 p.c.), the Scottish were third (13·4 p.c.), and the Irish fourth (12·6 p.c.). In 1931 the French again assumed the premier position and the English ranked second, outnumbered by 187,000, yet there were only 54 French to every 100 persons of English, Scottish, Irish and Welsh descent combined. There was a relative reduction in the British Isles races from 57 p.c. of the total population in 1901 to 49·7 p.c. in 1941. The causes for this relative decrease were mainly: declining immigration from the British Isles, emigration to the United States of the Anglo-Saxons, repatriation of large numbers of French Canadians from the United States, and the generally higher rate of increase on the part of the French as compared with the various Anglo-Saxon peoples. The factors of immigration and emigration are transitory and change rapidly but the rate of natural increase has been persistently favourable to the French.

For the British Isles races the inter-decennial increases have fallen consistently from 1911 to 1941. Between 1911 and 1921 the increase was 869,657; for the following decade it was 512,333; and from 1931 to 1941, 334,833.

The British Isles and French groups taken together constituted 80 p.c. of the population in 1941, as was the case in 1931; this compared with 83 p.c. in 1921, 84 p.c. in 1911, 88 p.c. in 1901, 89 p.c. in 1881, and no less than 92 p.c. in 1871. This pronounced decline has been due, in the main, to immigration of Continental Europeans to Canada during the past 40 years.

From the beginning of the present century the proportion of the European races (other than British and French) increased from 8·5 p.c. in 1901 to 17·8 p.c. in 1941. The rate was such as to more than double the numbers of these European stocks in one decade (1901-11) and was much higher for specific origins: for instance the Belgians and Scandinavians trebled; the Jews and Italians increased more than fourfold; the Poles and Finns, respectively, were numerically five and six times stronger in 1911 than in 1901.

The second decade of the century showed declining rates of growth; this period included three years of the heaviest immigration in the history of the Dominion and four years of war. The net result was that the European stocks increased from 944,783 to 1,247,103 or 32 p.c.

Several significant changes occurred in the third and fourth decades; European stocks (other than British and French) rose from 1,247,103 in 1921 to 2,043,926 in 1941 or by 63·9 p.c. With the resumption of moderate immigration from Continental Europe in 1921 and the relatively higher birth rate among earlier Continental European immigrants, foreign European stocks increased nearly four and one-half times more rapidly than the British in 1921-31.

13.—Racial Origins of the Population, Census Years 1871-1941, with Percentage Distribution for 1941

Racial Origin	1871[1]	1881	1901	1911	1921	1931	1941	
	No.	No.	No.	No.	No.	No.	No.	p.c.
British Isles Races....	2,110,502	2,548,514	3,063,195	3,999,081	4,868,738	5,381,071	5,715,904	49·68
English.............	706,369	881,301	1,260,899	1,871,268	2,545,358	2,741,419	2,968,402	25·80
Irish................	846,414	957,403	988,721	1,074,738	1,107,803	1,230,808	1,267,702	11·02
Scottish.............	549,946	699,863	800,154	1,027,015	1,173,625	1,346,350	1,403,974	12·20
Other...............	7,773	9,947	13,421	26,060	41,952	62,494	75,826	0·66
Other European Races.	1,322,813	1,598,386	2,107,327	3,006,502	3,699,846	4,753,242	5,526,964	48·03
French..............	1,082,940	1,298,929	1,649,371	2,061,719	2,452,743	2,927,990	3,483,038	30·27
Austrian............	–	–	10,947[2]	44,036	107,671	48,639	37,715	0·33
Belgian.............	–	–	2,994	9,664	20,234	27,585	29,711	0·26
Bulgarian...........	–	–	–	–	1,765	3,160	3,260	0·03
Czech and Slovak...	–	–	–	–	8,840	30,401	42,912	0·37
Danish..............	[3]	[3]	[3]	[3]	21,124	34,118	37,439	0·33
Finnish.............	–	–	2,502	15,500	21,494	43,885	41,683	0·36
German..............	202,991	254,319	310,501	403,417	294,635	473,544	464,682	4·04
Greek...............	39	–	291	3,614	5,740	9,444	11,692	0·10
Hungarian...........	–	–	1,549[4]	11,648[4]	13,181	40,582	54,598	0·47
Icelandic............	[3]	[3]	[3]	[3]	15,876	19,382	21,050	0·18
Italian..............	1,035	1,849	10,834	45,963	66,769	98,173	112,625	0·98

For footnotes, see end of table, p. 118.

13.—Racial Origins of the Population, Census Years 1871-1941, with Percentage Distribution for 1941—concluded

Racial Origin	1871[1]	1881	1901	1911	1921	1931	1941	
Other European Races —concluded	No.	No.	No.	No.	No.	No.	No.	p.c.
Jewish	125	667	16,131	76,199	126,196	156,726	170,241	1·48
Lithuanian	–	–	–	–	1,970	5,876	7,789	0·07
Netherlander	29,662	30,412	33,845	55,961	117,505	148,962	212,863	1·85
Norwegian	[3]	[3]	[3]	[3]	68,856	93,243	100,718	0·88
Polish	–	–	6,285	33,652	53,403	145,503	167,485	1·45
Roumanian	–	–	354[5]	5,883[5]	13,470	29,056	24,689	0·21
Russian	607[6]	1,227[6]	19,825	44,376	100,064	88,148	83,708	0·73
Scandinavian	1,623	5,223	31,042	112,682	[7]	[7]	[7]	–
Swedish	[3]	[3]	[3]	[3]	61,503	81,306	85,396	0·74
Ukrainian	–	–	5,682	75,432	106,721	225,113	305,929[8]	2·66
Yugoslavic	–	–	–	–	3,906	16,174	21,214	0·18
Other	3,791	5,760	5,174	6,756	16,180	6,232	6,527	0·06
Asiatic Races	4	4,383	23,731	43,213	65,914	84,548	74,064	0·64
Chinese	–	4,383	17,312	27,831	39,587	46,519	34,627	0·30
Japanese	–	–	4,738	9,067	15,868	23,342	23,149	0·20
Other	4	–	1,681	6,315	10,459	14,687	16,288	0·14
Indian and Eskimo	23,037	108,547	127,941	105,611	113,724	128,890	125,521	1·09
Negro	21,496	21,394	17,437	16,994	18,291	19,456	22,174	0·19
Other	348	2,780	145	18,310	187	681	36,753[9]	0·32
Not stated	7,561	40,806	31,539	16,932	21,249	8,898	5,275	0·05
Totals	**3,485,761**	**4,324,810**	**5,371,315**	**7,206,643**	**8,787,949**	**10,376,786**	**11,506,655**	**100·00**

[1] Includes the four original provinces of Canada only. [2] Includes Bohemian, Bukovinian and Slavic. [3] Included under Scandinavian. [4] Includes Lithuanian and Moravian. [5] Includes Bulgarian. [6] Includes Finnish and Polish. [7] Since 1921 Scandinavian has been divided into Danish, Icelandic, Norwegian and Swedish. [8] Includes Bukovinian, Galician and Ruthenian. [9] Includes 35,416 half-breeds.

Racial origins of the population by provinces and territories in 1941 are given at p. 106 of the 1945 edition of the Year Book.

Section 8.—Religions

At each census the actual numbers attached to any religious denomination, as reported by the persons enumerated, have been recorded. The growth of the different denominations from an early date is traced statistically in Table **14**.

Over the period from 1871 to 1941 approximately 40 p.c. of the population of Canada has been of the Roman Catholic faith. This proportion has been remarkably constant over the 70 years. The 1941 percentage (inclusive of Greek Catholics) was 43·3 p.c. Methodists were 15·7 p.c. of the population in 1871 but fell to 13·2 p.c. in 1921. Presbyterians increased from 15·6 p.c. in 1871 to 16 p.c. in 1921; they were reinforced by the considerable immigration from Scotland after the beginning of the century. The organization of the United Church of Canada in 1925 left the Presbyterians and the Congregationalists much weaker in membership. Almost all Methodists, the main body of Congregationalists and a large number of Presbyterians united to form that Church.

Among some of the numerically larger European races in Canada, the leading religious denominations at the 1941 Census were: German origin—32·0 p.c. Lutheran, 25·0 p.c. Roman Catholic and 14·2 p.c. United Church; Ukrainian origin—62·3 p.c. Roman Catholic and 29·1 p.c. Greek Orthodox; Scandinavian origin—59·8 p.c. Lutheran, 17·0 p.c. United Church and 6·8 p.c. Anglican; Netherlanders—30·5 p.c. Mennonite, 28·1 p.c. United Church, 11·4 p.c. Anglican and 7·6 p.c. Baptist. About 81 p.c. of the people of Polish origin were Roman Catholic and 91 p.c. of the Italians reported this religious denomination. It is interesting to note that 13·6 p.c. of the Chinese stated that they belonged to the United Church and 7 p.c. to the Presbyterian Church, while 21·4 p.c. of the Japanese reported United Church as their religious denomination.

14.—Religious Denominations of the Population, Census Years 1871-1941, with Percentage Distribution for 1941

Religion	1871	1881	1891	1901	1911	1921	1931	1941	
	No.	No.	No.	No.	No.	No.	No.	No.	p.c.
Adventist	6,179	7,211	6,354	8,058	10,406	14,179	16,026	18,449	0·16
Anglican	501,269	574,818	646,059	681,494	1,043,017	1,407,780	1,635,615	1,751,188	15·22
Baptist	243,714	296,525	303,839	318,005	382,720	421,730	443,341	483,592	4·20
Brethren	2,305	8,831	11,637	8,014	9,278	11,580	13,472	13,767	0·12
Buddhist	–	–	–	10,407	10,012	11,281	15,784	15,635	0·14
Christian	15,153	–	–	7,484	17,421	17,142	11,527	8,515	0·07
Christian Science	–	–	–	2,619	5,073	13,826	18,436	20,222	0·18
Church of Christ, Disciples	–	20,193	12,763	17,164	14,554	13,107	15,811	21,223	0·18
Confucian	–	–	–	5,115	14,562	27,114	24,087	22,233	0·19
Congregationalist	21,829	26,900	28,157	28,293	34,054	30,730	694[1]	[2]	–
Doukhobor	–	–	–	8,775	10,493	12,648	14,913	16,844	0·15
Evangelical Church	4,701	–	–	10,193	10,595	13,905	22,213	37,002	0·32
Free Methodist Church of Canada[3]	–	–	–	–	–	–	7,730	8,788	0·07
Friends	7,353	6,553	4,650	4,100	4,027	3,149	2,424	1,964	0·02
Gospel People	–	–	–	–	135	2,449	6,355	7,005	0·06
Greek Orthodox[4]	18	–	–	15,630	88,507	169,832	102,389	139,629	1·21
International Bible Students	–	–	–	99	925	6,678	13,552	6,994	0·06
Jewish	1,115	2,393	6,414	16,401	74,564	125,197	155,614	168,367	1·46
Lutheran	37,935	46,350	63,982	92,524	229,864	286,458	394,194	401,153	3·49
Mennonite (incl. Hutterite)[5]	–	–	–	31,797	44,625	58,797	88,736	111,380	0·97
Methodist	578,161	742,981	847,765	916,886	1,079,993	1,159,246	[2]	[2]	–
Mormon	534	–	–	6,891	15,971	19,622	22,005	25,284	0·22
No religion	5,146	2,634	[6]	4,810	26,027	21,739	21,071	19,126	0·17
Pagan	1,886	4,478	[6]	15,107	11,840	6,778	5,008	2,908	0·02
Pentecostal	–	–	–	–	513	7,003	26,301	57,646	0·50
Plymouth Brethren	–	–	–	3,040	3,438	6,482	6,983	6,447	0·06
Presbyterian	574,577	676,165	755,326	842,531	1,116,071	1,409,406	870,728[1]	829,147[1]	7·21
Protestant, *n.e.s.*	10,146	6,519	12,253	11,612	30,265	30,753	23,296	10,756	0·09
Roman Catholic	1,532,471	1,791,982	1,992,017	2,229,600	2,833,041	3,389,626	4,285,388[7]	4,986,552[7]	43·34
Salvation Army	–	–	13,949	10,308	18,834	24,733	30,716	33,548	0·29
Unitarian	2,275	2,126	1,777	1,934	3,224	4,926	4,445	5,578	0·05
United Church	–	–	–	–	–	8,728	2,017,375	2,204,875	19·16
Other	15,637	21,382	46,030	19,202	30,104	32,066	44,515	53,679	0·47
Not stated	126,853[8]	86,769	80,267	43,222	32,490	19,259	16,042	17,159	0·15
Totals	**3,689,257**	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,787,949**	**10,376,786**	**11,506,655**	**100·00**

[1] The figures for 1931 and 1941 entered opposite "Congregationalist" and "Presbyterian" represent the number not included in the "United Church". [2] Included in "United Church". [3] Reported as Methodist before 1931. [4] Greek Orthodox and Greek Catholic combined under the term "Greek Church" in 1921. In the Censuses of 1931 and 1941, Greek Catholics are included with Roman Catholics. [5] Mennonites were included with Baptists in 1871 and 1881; in 1891 they were included with "other denominations". [6] Included with "other". [7] Includes 186,654 Greek Catholics in 1931 and 185,657 in 1941. [8] Includes 109,475 population in Manitoba, British Columbia and the North-west Territories who were largely Indian and hence likely pagan.

Details of leading religious denominations by provinces are given at p. 109 of the 1945 edition of the Year Book; those of the population of the nine leading cities are shown in Table 14 of the 1946 Year Book at p. 107.

Section 9.—Birthplaces

The population of Canada by broad nativity groups—Canadian born, other British born, United States born and other foreign born—is shown in Table **15**.

The effects of the large immigration at the beginning of the century are seen in all columns of the percentage figures after 1901. Whereas in 1871, 83·3 p.c. of the total population were Canadian born, 14·1 p.c. other British born, and 2·6 p.c. foreign born, the corresponding proportions in 1941 were 82·5 p.c., 8·7 p.c. and 8·8 p.c., respectively.

The smallest element in the population, viz., the foreign born other than United States born, actually shows the greatest percentage increase. These "other foreign born" increased rapidly from 0·85 p.c. in 1871 to 7·5 p.c. in 1931. The decline of the group indicated for 1941 is attributable to a restricted immigration policy (see Chapter V).

15.—Nativity of the Population, Census Years 1871-1941

Year	British Born		Foreign Born		Total Population	Percentages of Total Population			
						British Born		Foreign Born	
	Canadian Born	Other British Born[1]	Born in United States	Born in Other Foreign Countries		Canadian Born	Other British Born	United States Born	Other Foreign Born
	No.	No.	No.	No.	No.	p.c.	p.c.	p.c.	p.c.
1871....	3,003,035	506,721	64,613	30,641	3,605,010[2]	83·30	14·06	1·79	0·85
1881....	3,721,826[3]	478,615	77,753	46,616	4,324,810	86·06	11·07	1·80	1·08
1891....	4,189,368[3]	490,573	80,915	72,383	4,833,239	86·68	10·15	1·67	1·50
1901....	4,671,815	421,051	127,899	150,550	5,371,315	86·98	7·84	2·38	2·80
1911....	5,619,682	834,229	303,680	449,052	7,206,643	77·98	11·58	4·21	6·23
1921....	6,832,224	1,065,448	374,022	516,255	8,787,949	77·75	12·12	4·26	5·87
1931....	8,069,261	1,184,830	344,574	778,121	10,376,786	77·76	11·42	3·32	7·50
1941....	9,487,808	1,003,769	312,473	701,660	11,506,655[3]	82·46	8·72	2·72	6·10

[1] Includes some hundreds of persons born at sea. [2] Includes six provinces only. [3] Includes "birthplace not stated".

Table 27, p. 113 of the 1943-44 Year Book gives, for 1941, the nativity of the population analysed by sex and province.

Table **16** gives the total population by country of birth for census years 1871-1941. The census, under birthplace, collects information on both the country of birth of the immigrant arrivals in Canada and the province of birth of the native-born population.

Comparative figures for country of birth for census periods to 1921 and those taken more recently are difficult to obtain because of the many geographical changes in Europe after the War of 1914-18; for instance, a person who, early in the century, migrated to Canada from a certain part of Austria or Hungary might not realize that in 1931 he should have recorded his birthplace as Poland or Roumania in line with the new national boundaries. In comparing the census figures of several decades these facts should be considered and a regrouping of certain European countries whose boundaries were changed in later censuses is carried back to earlier censuses to maintain comparability. Table **16** is as far as the census can go in supplying strictly comparable figures along these lines. In this table no change has been made affecting the census figures themselves: they have been merely regrouped geographically.

16.—Birthplaces of the Population, Census Years 1871-1941

Birthplace	1871	1881	1891	1901	1911	1921	1931	1941
Canada	3,003,035	3,721,826[1]	4,189,368[1]	4,671,815	5,619,682	6,832,224	8,069,261	9,487,808
British Isles	496,595	470,906	477,735	404,848	804,234	1,025,119	1,138,942	960,125
Other British Empire[2]	10,126	7,709	12,838	16,203	29,995	40,329	45,888	43,644
Europe	28,699	39,161	53,841	125,549	404,941	459,325	714,462	653,705
Belgium	-	-	-	2,280	7,975	13,276	17,033	14,773
Finland	-	-	-	-	10,987	12,156	30,354	24,387
France	2,908	4,389	5,381	7,944	17,619	19,247	16,756	13,795
Germany	24,162	25,328	27,752	27,300	39,577	25,266	39,163	28,479
Greece	-	-	-	213	2,640	3,769	5,579	5,871
Italy	218	777	2,795	6,854	34,739	35,531	42,578	40,432
Netherlands	-	-	-	385	3,808	5,827	10,736	9,923
Russia, Lithuania and Ukraine	416	6,376[3]	9,222	31,231	89,984	112,412	133,869	124,402
Scandinavian countries	588	2,076	7,827	18,388	61,240	64,795	90,042	72,473
Central European countries[4]	102	-	695	29,473	129,421	159,379	317,350	309,360
Other	305	215	169	1,481	6,951	7,667	11,002	9,810
Asia	-	-	9,129	23,580	40,946	53,636	60,608	44,443
United States	64,613	77,753	80,915	127,899	303,680	374,022	344,574	312,473
Other countries	1,942	7,455	9,413	1,421	3,165	3,294	3,051	3,512
Totals	**3,605,010**[5]	**4,324,810**	**4,833,239**	**5,371,315**	**7,206,643**	**8,787,949**	**10,376,786**	**11,506,655**[1]

[1] Includes "birthplace not stated". [2] Includes "born at sea". [3] Includes Poland. [4] Includes Austria, Czechoslovakia, Hungary, Yugoslavia, Poland, Galicia and Roumania. [5] Includes six provinces only.

More detailed information on this subject will be found at pp. 111-117 of the 1943-44 Year Book.

Section 10.—Citizenship

Until the passage of the Canadian Citizenship Act in 1946 (the Act came into force on Jan. 1, 1947), the basic legislation governing Canadian nationality was to be found in the Immigration Act. The new legislation was referred to briefly at p. 1137 of the 1946 Year Book and the statistics and other information resulting from its administration will be given in the Section entitled "Department of the Secretary of State" in the Miscellaneous Administration Chapter of this and subsequent editions.

At the decennial censuses, information on aliens and Canadian nationals is compiled and until now such figures have been the only available index of Canadian citizenship and nationality. As new data become available from the Department of the Secretary of State, it is possible that the census figures in this field will not have the significance they have carried in the past.

Table **17** shows that, at the Census of 1941, less than 1 p.c. of the total Canadian-born and other British-born population had lost their Canadian citizenship through renunciation or marriage. Over 80 p.c. of the United States-born persons in Canada, who form 2·7 p.c. of the total population, had become Canadian citizens together with 74·7 p.c. of the Continental European-born; of those born in Asiatic countries 72·7 p.c. remained aliens. Of the total population, only 2·4 p.c. were aliens.

17.—Citizenship of the Total Population, by Nativity, 1941

Birthplace	Canadian Nationals	Aliens	Not Stated	Total
Canada	9,475,252	12,521	35	9,487,808
British Empire (other than Canada)	979,680	2,566	8	1,003,769[1]
United States	250,929	61,427	117	312,473
Continental Europe	488,571	164,838	296	653,705
Asia	12,105	32,332	6	44,443
Other	2,993	519	Nil	3,512
Not stated	780	137	28	945
Totals	**11,210,310**	**274,340**	**490**	**11,506,655**[1]

[1] Includes 21,515 British-born persons who have not acquired Canadian domicile.

Section 11.—Languages and Mother Tongues

Official languages are not to be confused with mother tongues. Mother tongue, being used in the home, is natural to a person even if he is unable to speak it on account of youth, infirmity or for some other reason, whereas the official language or languages are those recognized by statute for general use. Thus, the immigrants to a new country bring with them their mother tongues and continue to use them in their homes, but these have no relation to the official languages in the country of their adoption.

Canada is officially bilingual, the two languages being English and French. The number speaking one, both or neither of the official languages is given below.

18.—Population Speaking One, Both or Neither of the Official Languages of Canada, by Racial Origin, 1941

Note.—Children under 5 years of age were classed as speaking the language of the home.

Racial Origin	Language Spoken				Total Population
	English	French	English and French	Neither English nor French	
	No.	No.	No.	No.	No.
British Isles Races	5,479,862	18,357	216,385	1,300	5,715,904
English	2,854,790	7,011	105,982	619	2,968,402
Irish	1,194,746	6,411	66,246	299	1,267,702
Scottish	1,356,363	4,906	42,346	359	1,403,974
Other	73,963	29	1,811	23	75,826
Other European Races	2,069,029	2,158,898	1,240,571	58,466	5,526,964
French	181,778	2,147,182	1,152,713	1,365	3,483,038
Austrian, *n.e.s.*	36,023	53	985	654	37,715
Belgian	16,833	1,861	10,870	147	29,711
Czech and Slovak	39,625	42	1,146	2,099	42,912
Finnish	39,112	81	416	2,074	41,683
German	451,207	1,257	7,712	4,506	464,682
Hungarian	52,016	40	944	1,598	54,598
Italian	82,825	6,364	21,240	2,196	112,625
Jewish	145,215	225	22,519	2,282	170,241
Netherlands	203,961	99	2,634	6,169	212,863
Polish	156,208	411	4,734	6,132	167,485
Roumanian	22,761	93	1,239	596	24,689
Russian	76,303	140	1,945	5,320	83,708
Scandinavian	240,482	295	3,011	815	244,603
Ukrainian[1]	280,210	189	4,157	21,373	305,929
Other	44,470	566	4,306	1,140	50,482
Asiatic Races	57,154	891	4,504	11,515	74,064
Chinese	25,873	39	418	8,297	34,627
Japanese	20,183	2	93	2,871	23,149
Other	11,098	850	3,993	347	16,288
Indian and Eskimo	80,326	1,746	3,176	40,273	125,521
Other	44,260	1,789	9,198	3,680	58,927
Not stated	4,855	65	175	180	5,275
Totals	**7,735,486**	**2,181,746**	**1,474,009**	**115,414**	**11,506,655**

[1] Includes also Bukovinian, Galician and Ruthenian.

Mother tongues spoken are dealt with in Table **19** which shows that 1,663,712 persons did not have either English or French as a mother tongue. Of the nine provinces, Ontario has the largest number of persons (425,189) speaking foreign languages as mother tongues; Saskatchewan has the highest percentage (39 p.c.).

19.—Mother Tongues of the Total Population, 1941

Note.—Children under 5 years of age were classed as speaking the language of the home.

Mother Tongue	Number	P.C.
English	6,488,190	56·39
Far Eastern Group	55,859	0·49
Chinese	33,500	0·29
Japanese	22,359	0·20
Finnish	37,331	0·32
Gaelic	32,708	0·28
Germanic Group	390,000	3·39
Flemish	14,557	0·13
German	322,228	2·80
Netherlands	53,215	0·46
Latin and Greek Group	3,461,192	30·08
French	3,354,753	29·15
Greek	8,747	0·08
Italian	80,260	0·70
Roumanian	16,402	0·14
Spanish	1,030	0·01
Magyar	46,287	0·40
Scandinavian Group	143,917	1·25
Danish	18,776	0·16
Icelandic	15,510	0·14
Norwegian	60,084	0·52
Swedish	49,547	0·43
Slavic Group	568,821	4·94
Austrian, *n.e.s.*	9,435	0·08
Bohemian	3,445	0·03
Bulgarian	2,149	0·02
Lithuanian	6,910	0·06
Polish	128,711	1·12
Russian	52,431	0·45
Serbo-Croatian	14,863	0·13
Slovak	37,604	0·33
Ukrainian	313,273	2·72
Syrian and Arabic	8,111	0·07
Yiddish	129,806	1·13
Various	144,433	1·26
Totals	**11,506,655**	**100·00**

Section 12.—School Attendance

Statistics under this heading for the Census date of 1941 will be found at p. 138 of the 1943-44 Year Book.

Section 13.—Blind and Deaf-Mutes

Detailed statistics of the blind and of deaf-mutes are given in Vol. IV of the 1941 Census.

Blind.—Persons who had lost the sight of one eye only were not regarded as blind. According to the standards applied by the Census, the blind in the nine provinces in 1941 numbered 9,962 or 8·7 per 10,000 of the population as compared with 3,266 or 6·1 in 10,000 at the beginning of the century.

Deaf-Mutes.—Deaf-mutism, unlike blindness, is preponderantly an infirmity originating at birth or an early age. The number of deaf-mutes in the nine provinces of Canada increased from 5,368 in 1881 to 7,194 in 1941. The number of blind deaf-mutes in Canada is 158, 39·9 p.c. of whom are in Quebec; 29·7 p.c. in Ontario; 8·2 p.c. in Nova Scotia; 5·7 p.c. in Alberta; 5·1 p.c. in British Columbia; 3·8 p.c. in each of the Provinces of Prince Edward Island and Manitoba; and 1·9 p.c. in the Provinces of New Brunswick and Saskatchewan.

20.—Blind[1] and Deaf-Mutes per 10,000 Population, by Provinces, 1881-1941

Province	Blind							Deaf-Mutes						
	1881	1891	1901	1911	1921	1931	1941	1881	1891	1901	1911	1921	1931	1941
Prince Edward Island..	6·2	7·5	6·5	6·2	8·5	9·3	11·7	11·2	8·0	9·5	5·0	4·5	5·1	6·7
Nova Scotia............	8·1	9·0	10·5	6·7	11·0	14·6	14·5	13·2	11·0	13·6	9·6	8·3	8·9	7·5
New Brunswick.........	6·6	7·8	8·5	6·6	6·6	9·2	15·9	12·5	11·0	13·4	7·8	7·6	8·5	8·3
Quebec..................	8·1	8·2	6·3	5·6	5·3	8·0	9·5	16·4	14·2	15·1	8·2	8·0	9·7	8·5
Ontario..................	5·7	5·8	4·9	4·3	5·3	6·7	8·3	10·2	7·6	9·2	5·6	6·3	5·3	5·2
Manitoba................	5·0	2·4	4·1	2·7	2·9	6·6	7·7	7·9	6·7	11·4	6·5	4·5	6·7	5·7
Saskatchewan...........	–	–	5·9	1·6	2·1	4·2	4·9	–	–	8·0	3·7	3·4	3·9	5·4
Alberta..................	–	–	8·2	1·9	1·7	3·2	5·0	–	–	6·2	3·9	2·8	4·0	4·3
British Columbia.......	25·9	13·0	6·4	3·5	4·2	6·5	7·3	5·5	4·5	5·1	2·8	2·5	3·1	3·2
Totals............	**7·0**	**7·1**	**6·1**	**4·5**	**5·0**	**7·1**	**8·7**	**12·6**	**10·1**	**11·6**	**6·4**	**6·1**	**6·5**	**6·3**

[1] Not including blind deaf-mutes.

Section 14.—Occupations

For a summary of the occupations of the Canadian people for the 1941 Census, see Appendix III, pp. 1062-73, of the 1943-44 Year Book.

Figures for Canada, excluding Yukon and the Northwest Territories, show that 3,676,563 males and 833,972 females, 14 years or over, or a total of 4,510,535 persons, including members of the Armed Forces, were gainfully occupied at the time of the 1941 Census. Males represented 81·5 p.c. and females 18·5 p.c. of the total gainfully occupied. The population of the nine provinces consisted of 5,890,683 males and 5,599,030 females or a total of 11,489,713 persons. The total gainfully occupied, therefore, accounted for 39·3 p.c. of the total population; gainfully occupied males representing 62·4 p.c. of the total male population and gainfully occupied females 14·9 p.c. of the total female population. Nearly 84 p.c. of the males and about 20 p.c. of the females, 14 years of age or over, were gainfully occupied at the 1941 Census.

21.—Numbers and Percentages of Gainfully Occupied Males and Females, 14 Years of Age or Over, by Sex, Census Years 1921-41

(Exclusive of Yukon and the Northwest Territories)

Census Year	Gainfully Occupied 14 Years or Over			P.C. of Total Population Gainfully Occupied			P.C. of Population 14 Years or Over Gainfully Occupied		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
1921..............	3,164,348	2,675,290	489,058	36·1	59·2	11·5	53·3	86·6	17·2
1931..............	3,921,833	3,256,531	665,302	37·8	60·7	13·3	53·8	85·4	19·1
1941 (including Active Service).	4,510,535	3,676,563	833,972	39·3	62·4	14·9	53·0	83·8	20·2
1941 (not including Active Service).	4,195,951	3,363,111	832,840	36·5	57·1	14·9	49·3	76·7	20·2

22.—Numbers and Percentages of the Gainfully Occupied Males and Females, 14 Years of Age or Over, by Occupation Groups, 1941

(Exclusive of Yukon and the Northwest Territories)

Occupation Group	Males			Females	
	Total A[1]	Total B[2]	P.C.[3]	Total	P.C.
Agriculture	1,104,579	1,064,847	31·7	18,969	2·3
Fishing, trapping and logging	138,460	131,374	3·9	326	[4]
Mining, quarrying	77,909	71,861	2·1	25	[4]
Manufacturing	615,284	573,574	17·1	129,588	15·6
Construction	215,333	202,509	6·0	339	[4]
Transportation	278,402	254,591	7·6	14,065	1·7
Trade	292,910	273,059	8·1	82,020	9·8
Finance, insurance	33,104	30,576	0·9	816	0·1
Service	339,307	316,313	9·4	418,111	50·2
Clerical	204,666	182,823	5·4	155,208	18·6
Labourers[5]	273,925	251,889	7·5	11,655	1·4
Not stated	39,166	9,695	0·3	1,718	0·2
All Occupations	**3,613,045**	**3,363,111**	**100·0**	**832,840**	**100·0**
Males on Active Service not gainfully occupied prior to enlistment	63,518	–	–	–	–
Total	**3,676,563**	–	–	–	–

[1] Total "A" includes males on Active Service with a gainful occupation prior to enlistment. [2] Total "B" includes occupied males minus those on Active Service. [3] Based on column 2. There is very little difference in the percentage distribution of males by occupation groups with Active Service included. [4] Less than 0·05 p.c. [5] This group does not include agricultural, fishing, logging, or mining labourers.

Section 15.—Dwellings, Households and Families*

Buildings and Dwellings.—According to Table 23, the number of occupied dwellings in Canada† at the 1941 Census was 2,597,969 as compared with 2,227,000* at the 1931 Census. The number of persons per dwelling was highest in Quebec at 5·1 and lowest in British Columbia at 3·7. In addition, there were 62,008 vacant dwellings in the Dominion on June 2, 1941. It should be explained that the total number of buildings used for habitation—2,181,564—was somewhat less than the number of dwellings since, in the case of apartment buildings, rows and semi-detached structures, each building would contain one or more dwellings.

Definitions of Dwellings and Dwelling Types.—The Census defines a dwelling as "a structurally separate set of self-contained living premises having its own entrance from outside of the building containing it or from a common passage or stairway inside". According to this definition a single-dwelling house is a permanent structure in which there is only one self-contained dwelling unit. A semi-detached dwelling house, sometimes known as a "double house", is a two-dwelling structure with separate entrances to each dwelling, and divided by a solid partition extending from attic to cellar. This distinguishes the semi-detached from the "duplex" or two-dwelling apartment house where the division, with upper and lower apartments, is on a horizontal basis. Apartment dwellings or suites are found in apartment blocks, each dwelling having a separate exit to a common hall or landing. A flat is structurally similar to an apartment house except that each dwelling unit has an independent entrance from the outside.

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* For 1931 Census figures, see p. 136 of the 1936 Year Book The figure of 1,984,286 given there represents number of buildings containing dwellings and not the number of dwellings.

† Figures in this Section are exclusive of Yukon and the Northwest Territories.

Households and Families.—The number of households in the nine provinces at the 1941 Census was 2,706,089 and the average size of all households was 4·3 persons per household. Private families in Canada totalled 2,525,299, the average number of persons per family being 3·9. The average size of households and of families was largest in Quebec and smallest in British Columbia.

Definitions of Household and Family.—In the Census a household is defined as "a person or a group of persons living in one housekeeping community. The persons may or may not be related by ties of kinship, but if they live together with common housekeeping arrangements, they constitute a household". Persons on Active Service were included as members of their family households whether actually living at home or not at the date of the Census.

The family membership is restricted to persons having the husband-wife or parent-child relationship and thus is not always comparable with the group of persons composing the household. The latter often consists of two or more families and very frequently includes persons related to the head, such as uncle, niece, grandmother, etc., but who are not members of his immediate family.

23.—Numbers of Buildings, Dwellings, Households and Families, and Average Numbers of Persons per Dwelling, per Household and per Family, by Provinces, 1941.

Province	Population	Buildings[1]	Dwellings		Households	Families	Persons per Dwelling	Persons per Household	Persons per Family
			Occupied[2]	Vacant					
	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E. Island	95,047	19,719	20,236	753	20,432	19,590	4·70	4·65	4·19
Nova Scotia	577,962	114,451	124,396	3,840	128,641	123,561	4·65	4·49	4·04
New Brunswick	457,401	83,429	92,703	2,922	94,599	93,479	4·93	4·84	4·32
Quebec	3,331,882	436,012	650,838	14,321	663,426	647,946	5·12	5·02	4·53
Ontario	3,787,655	779,751	916,122	21,464	969,267	909,210	4·13	3·91	3·56
Manitoba	729,744	149,206	164,985	2,342	176,942	166,249	4·42	4·12	3·83
Saskatchewan	895,992	206,291	209,820	6,465	214,939	190,137	4·27	4·17	4·13
Alberta	796,169	185,585	195,574	4,040	201,796	175,744	4·07	3·95	3·91
British Columbia	817,861	207,120	223,295	5,861	236,047	199,383	3·66	3·46	3·36
Totals	**11,489,713**	**2,181,564**	**2,597,969**	**62,008**	**2,706,089**	**2,525,299**	**4·42**	**4·25**	**3·94**

[1] Buildings used for habitation only. [2] Includes dwellings with tenure not stated.

Similar data on buildings, dwellings, households and families for urban centres of 30,000 population or over at the 1941 Census are given in Table 24.

24.—Numbers of Buildings, Dwellings, Households and Families and Average Numbers of Persons per Dwelling, per Household and per Family, for Urban Centres of 30,000 Population or Over, 1941.

Urban Centre	Population	Buildings[1]	Dwellings		Households	Families	Persons per Dwelling	Persons per Household	Persons per Family
			Occupied[2]	Vacant					
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Brantford	31,948	6,921	8,191	40	8,543	8,152	3·90	3·74	3·37
Calgary	88,904	16,860	21,758	88	25,387	22,738	4·09	3·50	3·30
Edmonton	93,817	18,718	23,087	367	24,700	22,619	4·06	3·80	3·52
Fort William	30,585	5,633	6,360	10	6,763	6,881	4·81	4·52	3·67
Halifax	70,488	9,172	13,520	57	15,089	15,235	5·21	4·67	3·69
Hamilton	166,337	31,566	39,915	378	43,076	42,412	4·17	3·86	3·38

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[1] Buildings used for habitation only. [2] Does not include dwellings with tenure not stated.

24.—Numbers of Buildings, Dwellings, Households and Families and Average Numbers of Persons per Dwelling, per Household and per Family, for Urban Centres of 30,000 Population or Over, 1941—concluded.

Urban Centre	Population	Buildings[1]	Dwellings		Households	Families	Persons per Dwelling	Persons per Household	Persons per Family
			Occupied[2]	Vacant					
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Hull	32,947	4,404	6,091	26	6,427	6,574	5·41	5·13	4·58
Kingston	30,126	4,749	6,538	98	7,226	7,135	4·61	4·17	3·37
Kitchener	35,657	6,720	8,463	50	9,215	8,778	4·21	3·87	3·53
London	78,264	17,153	20,227	417	21,050	19,434	3·87	3·72	3·29
Montreal	903,007	67,443	198,844	2,502	203,685	197,840	4·54	4·43	3·91
Ottawa	154,951	18,552	32,355	170	35,601	34,609	4·79	4·35	3·62
Outremont	30,751	2,991	6,919	65	7,038	7,033	4·44	4·37	3·69
Quebec	150,757	12,373	26,895	283	28,170	27,594	5·61	5·35	4·59
Regina	58,245	10,144	12,982	81	15,390	13,765	4·49	3·78	3·53
St. Catharines	30,275	6,360	7,444	71	8,009	7,689	4·07	3·78	3·33
Saint John	51,741	5,937	11,858	127	12,241	11,580	4·36	4·23	3·73
Saskatoon	43,027	8,764	10,347	186	11,461	10,338	4·16	3·75	3·49
Sherbrooke	35,965	3,351	7,563	111	7,770	7,515	4·76	4·63	4·02
Sudbury	32,203	4,840	7,130	261	7,685	7,370	4·52	4·19	3·72
Toronto	667,457	87,353	147,180	2,466	175,736	168,218	4·53	3·80	3·30
Three Rivers	42,007	3,609	7,376	84	7,688	7,871	5·70	5·46	4·69
Vancouver	275,353	58,393	70,718	1,368	80,826	70,583	3·89	3·41	3·17
Verdun	67,349	4,891	16,026	93	16,184	16,312	4·20	4·16	3·74
Victoria	44,068	9,633	11,442	178	13,236	10,854	3·85	3·33	3·05
Windsor	105,311	18,847	25,231	213	26,126	25,701	4·17	4·03	3·59
Winnipeg	221,960	35,903	48,796	541	59,607	56,369	4·55	3·72	3·31

[1] Buildings used for habitation only.

[2] Does not include dwellings with tenure not stated.

For further details concerning tenure and kind of dwellings, composition and size of family and households, see pp. 121-125 of the 1946 edition of the Year Book.

Section 16.—Quinquennial Census of the Prairie Provinces

The Census and Statistics Act of 1905 and the Statistics Act of 1918 provide for a census of population and agriculture for the Provinces of Manitoba, Saskatchewan and Alberta, to be taken in 1906 and every tenth year thereafter, in addition to the Dominion Decennial Census.

The latest Prairie Provinces Census was taken on June 3, 1946, and detailed results of this Census will be published by the Dominion Bureau of Statistics.

As in the past, this Census covers both population and agriculture. In addition, a housing census was taken in cities and towns of 5,000 population or over. The population census also ascertains age, sex, marital condition, birthplace, place of residence in 1941, nationality, mother tongue, and degree of education. In addition, every person 14 years of age or over reported his occupation, the industry in which he was employed and his occupational status, as employer, wage-earner, own account, etc. Wage-earners reported their earnings for the twelve months immediately preceding the census date. Questions were asked to determine the amount of unemployment at the date of the Census given above.

The Census of Agriculture ascertained the farm population and the number of farm workers; the area, condition and value of farm lands; the area and production of crops; the numbers of live stock and the production of animal products; farm facilities; mortgage indebtedness; farm expenditures and gross revenues of farms.

So far as the Year Book is concerned, only final figures are published and these will not be available for some time. Preliminary figures will be available in bulletin form.

PART III.—INTERNATIONAL STATISTICS OF POPULATION

Section 1.—Area and Population of the British Empire

Statistics showing official estimates of the area and population of the British Empire by continents and countries are given in Table 52, pp. 141-142 of the 1943-44 Year Book.

Section 2.—Area and Population of the World

Statistics showing the areas and the populations of the various continents and details of each country, as in 1931, are given in a table at pp. 168-169 of the 1934-35 Year Book. The lack of statistical data, and the dislocations caused by the War, preclude the compilation of later information.

CHAPTER V.—IMMIGRATION AND EMIGRATION*

CONSPECTUS

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Section 1.—Immigration

Subsection 1.—Growth of Immigration

In 1851 the population of Upper and Lower Canada, Nova Scotia and New Brunswick totalled 2,312,919 and in 1941 the population of the Dominion was 11,506,655. During that period no fewer than 6,703,891 persons were admitted as immigrants, not all of whom stayed in the Dominion, for numbers eventually found their way to the United States while others returned to the land of their birth.

The years between 1900 and 1914, a period of general expansion and industrialization which accompanied a great inflow of capital from Great Britain, witnessed the heaviest movement of immigrants into Canada. The highest figure was reached in 1913, when 400,870 persons were admitted. After the outbreak of war in 1914, immigration declined to a fraction of the pre-war movement and on the conclusion of peace it did not immediately revive; even the post-war boom of 1920 was accompanied by an immigration of less than 140,000. However, towards the end of the 1920's, the numbers increased somewhat. During this period, the immigration policy of the Dominion Government was one of active encouragement, but the depression that began late in 1929 necessitated restrictions that greatly reduced immigration throughout the 1930's. The outbreak of war in 1939 still further reduced the numbers entering Canada but the downward trend changed in 1943 due to the movement to Canada of dependents of the Armed Forces. In January, 1942, provision was made to furnish the dependents of members of the Armed Forces serving overseas with free transportation from their home in country of residence to destination in Canada. From 1942 to 1946, 62,077 dependents, comprising 42,098 adults and 19,979 children, were admitted to Canada.

After the end of the War, it was considered advisable to permit a somewhat increased movement of immigrants to Canada and at the same time provide for the admission of a number of refugees or displaced persons. Consequently, under

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* Revised under the direction of A. L. Jolliffe, Director of Immigration, Department of Mines and Resources, Ottawa.

Orders in Council P.C. 2071, dated May, 1946, and P.C. 371, dated January, 1947, permission was granted for the entry of the following:—

(1) The wife, unmarried son, daughter, brother or sister, father or mother, widowed daughter or sister with or without unmarried children under 18 years of age, the orphan nephew or niece under 18 years of age, of any person legally admitted to and resident in Canada who is in a position to receive and care for such relatives.

(2) An agriculturist having sufficient means to farm in Canada.

(3) An agriculturist entering Canada to farm, when destined to a father, father-in-law, son, son-in-law, brother, brother-in-law, uncle or nephew engaged in agriculture as his principal occupation who is in a position to receive such immigrant and establish him on a farm.

(4) A farm labourer entering Canada to engage in assured farm employment.

(5) A person experienced in mining, lumbering or logging entering Canada to engage in assured employment in any one of such industries.

1.—Immigrant Arrivals in Canada, 1892-1946

Note.—Statistics for 1852-91 will be found at p. 153 of the 1942 Year Book.

Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals
	No.		No.		No.		No.		No.		No.
1892....	30,996	1901..	55,747	1910..	286,839	1919..	107,698	1928..	166,783	1937..	15,101
1893....	29,633	1902..	89,102	1911..	331,288	1920..	138,824	1929..	164,993	1938..	17,244
1894....	20,829	1903..	138,660	1912..	375,756	1921..	91,728	1930..	104,806	1939..	16,994
1895....	18,790	1904..	131,252	1913..	400,870	1922..	64,224	1931..	27,530	1940..	11,324
1896....	16,835	1905..	141,465	1914..	150,484	1923..	133,729	1932..	20,591	1941..	9,329
1897....	21,716	1906..	211,653	1915..	36,665	1924..	124,164	1933..	14,382	1942..	7,576
1898....	31,900	1907..	272,409	1916..	55,914	1925..	84,907	1934..	12,476	1943..	8,504
1899....	44,543	1908..	143,326	1917..	72,910	1926..	135,982	1935..	11,277	1944..	12,801
1900....	41,681	1909..	173,694	1918..	41,845	1927..	158,886	1936..	11,643	1945..	22,722
										1946..	71,719

2.—Immigrant Arrivals in Canada from the United Kingdom, the United States and Other Countries, 1921-46

Note.—The 1936 edition of the Year Book shows, at p. 186, statistics of immigration on this basis, by calendar years from 1881 to 1900 and by fiscal years from 1901 to 1935. Calendar-year figures are given for 1908 to 1920 at p. 153 of the 1942 edition.

Year	Immigrant Arrivals from—			Total	Year	Immigrant Arrivals from—			Total
	United Kingdom	United States	Other Countries			United Kingdom	United States	Other Countries	
	No.	No.	No.	No.		No.	No.	No.	No.
1921.........	43,772	23,888	24,068	91,728	1934........	2,166	6,071	4,239	12,476
1922.........	31,005	17,534	15,685	64,224	1935........	2,103	5,291	3,883	11,277
1923.........	70,110	16,716	46,903	133,729	1936........	2,197	4,876	4,570	11,643
1924.........	57,612	16,042	50,510	124,164	1937........	2,859	5,555	6,687	15,101
1925.........	35,362	17,717	31,828	84,907	1938........	3,389	5,833	8,022	17,244
1926.........	48,819	20,944	66,219	135,982	1939........	3,544	5,649	7,801	16,994
1927.........	52,940	23,818	82,128	158,886	1940........	3,021	7,134	1,169	11,324
1928.........	55,848	29,933	81,002	166,783	1941........	2,300	6,594	435	9,329
1929.........	66,801	31,852	66,340	164,993	1942........	2,259	5,098	219	7,576
1930.........	31,709	25,632	47,465	104,806	1943........	3,834	4,401	269	8,504
1931.........	7,678	15,195	4,657	27,530	1944........	7,713	4,509	579	12,801
1932.........	3,327	13,709	3,555	20,591	1945........	14,677	6,394	1,651	22,722
1933.........	2,304	8,500	3,578	14,382	1946........	51,408	11,469	8,842	71,719

Subsection 2.—Sex and Conjugal Condition of Immigrants

Females constituted 71·4 p.c. of the total immigrants to Canada in 1946, as compared with 66·1 p.c. in 1945. Prior to 1931 males normally exceeded females.

3.—Sex and Conjugal Condition of Immigrant Arrivals, by Age Groups, 1945 and 1946

Year and Age Group	Males					Females				
	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1945										
0-14 years......	3,237	Nil	Nil	Nil	3,237	3,019	Nil	Nil	Nil	3,019
15-19 "	443	6	"	"	449	643	804	13	1	1,461
20-24 "	472	158	"	2	632	526	4,136	120	4	4,786
25-29 "	257	367	1	3	628	228	2,073	71	3	2,375
30-39 "	220	896	12	16	1,144	164	1,506	49	31	1,750
40-49 "	109	667	25	17	818	87	539	68	30	724
50 years or over..	70	601	99	23	793	116	412	357	21	906
Totals, 1945....	**4,808**	**2,695**	**137**	**61**	**7,701**	**4,783**	**9,470**	**678**	**90**	**15,021**
1946										
0-14 years......	9,998	Nil	Nil	Nil	9,998	9,465	1	Nil	Nil	9,466
15-19 "	793	14	"	"	807	1,109	3,504	12	"	4,625
20-24 "	992	669	"	5	1,666	1,043	17,022	194	12	18,271
25-29 "	692	1,467	4	6	2,169	515	8,326	187	36	9,064
30-39 "	591	2,055	9	37	2,692	455	5,118	130	84	5,787
40-49 "	226	1,313	31	43	1,613	193	1,566	161	65	1,985
50 years or over..	135	1,176	197	30	1,538	223	921	856	38	2,038
Totals, 1946.....	**13,427**	**6,694**	**241**	**121**	**20,483**	**13,003**	**36,458**	**1,540**	**235**	**51,236**

4.—Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, 1935-46

NOTE.—Figures for the years 1930-34 will be found at p. 183 of the 1946 Year Book.

Year	Adult Males	Adult Females	Under 18 Years		Total
			Males	Females	
	No.	No.	No.	No.	No.
1935....................................	2,550	4,593	2,106	2,028	11,277
1936....................................	2,691	4,830	2,127	1,995	11,643
1937....................................	3,573	6,126	2,727	2,675	15,101
1938....................................	4,142	6,800	3,274	3,028	17,244
1939....................................	4,866	6,820	2,815	2,493	16,994
1940....................................	3,939	4,517	1,432	1,436	11,324
1941....................................	3,851	3,489	940	1,049	9,329
1942....................................	2,280	3,429	928	939	7,576
1943....................................	2,113	4,064	1,177	1,150	8,504
1944....................................	2,391	6,253	2,103	2,054	12,801
1945....................................	4,259	11,620	3,442	3,401	22,722
1946....................................	9,934	40,818	10,549	10,418	71,719

Subsection 3.—Mother Tongues and Racial Origins of Immigrants

Mother Tongues of Immigrants.—At the Census of 1941, only 115,414 persons or 1 p.c. of the total population were unable to speak either English or French, but the percentages, by racial origins, of those speaking neither official language varied greatly. (See pp. 122-123.)

The Immigration Branch does not record the ability of immigrants to speak the official tongues of the Dominion; the statistics appearing in Table **5** relate only to the mother tongue of the immigrant. The great majority of those coming from the United States naturally give English as their mother tongue, regardless of their racial origin. In the calendar year 1946, 620 persons (10 years of age or over) coming from the United States, many of whom were undoubtedly of French-Canadian origin, gave French as their mother tongue. In that year, persons from all countries giving English as their mother tongue constituted 89·4 p.c. of the total and those giving French 1·9 p.c.

5.—Mother Tongues of Immigrants, 10 Years of Age or Over, 1937-46

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub item.

Mother Tongue	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
Albanian	7	5	5	–	–	–	–	–	–	–
Armenian (Aramaic)	3	1	2	1	–	–	–	–	–	3
Bulgarian	27	20	13	2	–	–	–	–	–	2
Chinese	1	–	–	–	–	–	–	–	–	2
Croatian (Serbian)	438	460	185	43	3	1	5	12	13	18
Czech (Bohemian)	989	1,389	673	100	20	14	13	14	36	191
Danish	38	36	73	23	7	3	12	4	9	45
East Indian	8	8	16	6	1	3	–	–	–	3
English	6,643	7,142	7,431	8,206	7,497	6,023	6,518	9,054	15,853	48,120
Estonian	–	8	5	–	–	1	2	1	6	4
Finnish	65	56	60	10	7	6	7	4	10	16
Flemish	62	131	90	8	7	1	5	3	1	452
French	478	623	559	501	356	256	295	332	458	1,035
German	511	571	1,944	208	50	40	21	28	214	1,010
Greek	76	106	103	45	12	3	6	5	19	53
Hungarian (Magyar)	436	507	383	94	21	2	14	7	17	86
Icelandic	–	1	–	–	–	1	2	1	2	–
Italian	367	337	183	105	8	4	10	4	12	67
Japanese	130	52	40	38	5	–	–	–	–	–
Lettish	7	4	3	5	2	–	1	–	1	2
Lithuanian	43	40	50	15	4	2	2	–	2	2
Netherlands	58	95	190	56	30	8	7	4	11	1,798
Norwegian	25	20	43	27	16	26	6	3	46	147
Polish	1,215	1,440	1,198	62	47	19	20	37	260	560
Portuguese	–	–	1	1	1	1	–	–	3	4
Roumanian	103	142	90	12	12	4	6	2	3	24
Russian	42	29	88	16	23	7	6	19	9	46
Russniak[1]	401	728	665	5	2	1	7	3	4	7
Slovenian	2	1	–	–	–	–	–	–	1	1
Spanish	11	7	8	21	11	7	8	11	20	31
Swedish	41	28	14	12	4	7	6	8	10	28
Syrian (Arabic)	16	18	13	2	4	–	1	5	1	3
Turkish	1	1	1	–	4	–	–	1	1	–
Yiddish and Hebrew	110	93	197	36	41	12	17	20	46	94
Not given	–	–	–	–	–	–	1	–	–	–
Totals	**12,354**	**14,099**	**14,326**	**9,660**	**8,195**	**6,452**	**6,998**	**9,582**	**17,068**	**53,854**

[1] Includes Ruthenian and Ukrainian.

Racial Origins of Immigrants.—The great bulk of Canadian immigration of the past generation has been drawn from the English-speaking countries and from those Continental European countries where the population is ethnically closely related to the British, though for some years there was an increasing immigration of Slavs. Since the outbreak of war in 1939, the predominant racial origins of immigrants have been British, French, Jewish and Netherlander.

6.—Racial Origins of Immigrants into Canada, 1942-46

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub items. Figures for 1926-41 will be found in the corresponding table of previous Year Books beginning with the 1939 edition.

Origin	1942	1943	1944	1945	1946
British—					
English	3,656	4,661	7,888	13,831	42,197
Irish	813	896	1,112	1,878	4,632
Scottish	971	902	1,254	2,469	10,209
Welsh	88	88	127	273	1,294
Totals, British	5,528	6,547	10,381	18,451	58,332
Continental European					
Albanian	1	–	–	–	2
Belgian	7	17	20	33	751
Bohemian	8	7	3	15	31
Bulgarian	–	2	1	1	3
Croatian	3	4	2	3	10
Czech	12	9	20	42	207
Dalmatian	–	–	–	–	1
Estonian	1	2	1	8	8
Finnish	21	18	8	26	56
French	660	701	860	1,295	3,229
German	290	314	320	584	1,298
Greek	18	15	16	38	108
Italian	48	76	74	132	320
Jewish	311	203	310	654	2,100
Lettish	2	2	1	2	6
Lithuanian	5	6	7	11	28
Magyar	22	33	39	58	152
Maltese	–	1	1	6	12
Mexican	1	1	1	3	3
Moravian	–	1	–	3	1
Netherlander	150	124	155	268	2,431
Polish	77	72	106	332	730
Portuguese	5	2	7	13	47
Roumanian	4	8	9	14	44
Russian	32	27	49	86	213
Continental European—concluded					
Ruthenian	15	29	26	33	171
Scandinavian—					
Danish	33	28	51	65	168
Icelandic	8	3	9	12	24
Norwegian	115	57	70	169	456
Swedish	52	60	89	115	231
Serbian	4	5	5	5	18
Slovak	20	25	5	17	19
Spanish	6	10	11	22	49
Spanish American	9	2	11	4	21
Swiss[1]	31	12	23	33	120
Yugoslavic	3	3	11	25	34
Totals, Continental European	1,974	1,879	2,321	4,127	13,102
Non-European—					
Armenian	4	2	2	6	12
Chinese	–	–	–	–	8
East Indian	3	–	–	1	5
Indian (American)	7	17	22	18	37
Japanese	–	1	–	–	3
Negro	48	38	54	97	173
Persian	–	–	1	–	3
Syrian	12	19	20	22	37
Turkish	–	1	–	–	7
Totals, Non-European	74	78	99	144	285
Grand Totals	**7,576**	**8,504**	**12,801**	**22,722**	**71,719**

[1] Reported as "Swiss" origin but are evidently one of the constituent races such as German, French, Italian, etc.

Subsection 4.—Nationalities of Immigrants

In the calendar year 1946, 83·0 p.c. of total immigrants into Canada were British subjects and 13·4 p.c. were citizens of the United States.

7.—Nationalities of Immigrants into Canada, 1942-46

NOTE.—Dashes in this table indicate that no immigrants were reported for the corresponding stub items. Figures for 1930-41 will be found in the corresponding table of previous Year Books beginning with the 1936 edition.

Nationality	1942	1943	1944	1945	1946
Argentinian	1	–	3	–	2
Austrian	–	–	–	–	25
Belgian	3	4	3	5	79
Brazilian	2	–	1	–	7
British	3,717	5,141	9,105	16,892	59,511
Bulgarian	–	–	–	–	2
Central American	1	–	3	–	7
Chilean	–	–	–	–	4
Cuban	2	3	3	7	1
Czechoslovakian	16	10	7	42	216
Danziger	–	–	–	–	2
Danish	5	12	1	9	36
Estonian	1	2	1	6	3
Finnish	–	1	1	2	7
French	6	7	17	23	101
German	21	20	8	196	844
Greek	–	1	1	6	37
Haitian	–	–	–	–	1
Hungarian	–	2	1	4	61
Icelandic	–	1	1	6	–
Italian	–	–	1	6	35
Latvian	1	–	–	1	2
Liechtenstein	–	–	3	–	–
Lithuanian	3	2	–	1	2
Luxemburger	–	–	–	–	2
Mexican	1	2	–	17	6
Netherlander	11	3	1	11	178
Norwegian	27	3	–	52	183
Persian	1	–	–	–	–
Peruvian	1	–	1	–	1
Polish	11	7	21	257	627
Portuguese	–	–	–	1	4
Roumanian	2	6	1	4	28
Russian	1	4	4	5	23
South American	5	–	1	–	1
Spanish	3	1	2	2	6
Swedish	1	1	2	5	12
Swiss	10	6	3	10	13
Syrian	–	1	–	–	2
Turkish	–	–	1	2	–
Ukrainian	–	–	–	–	1
United States	3,721	3,258	3,594	5,140	9,623
Uruguyan	–	–	–	–	1
West Indian (not British)	–	–	–	–	1
Yugoslavic	2	6	10	10	22
Totals	**7,576**	**8,504**	**12,801**	**22,722**	**71,719**

Subsection 5.—Destinations and Occupations of Immigrants

Destinations.—Immigrants entering the Dominion are required to give the province of intended destination, but it does not necessarily follow that this is the province of eventual residence. It is believed, however, that the figures for later years give a truer picture of actual residence than did those for the earlier years, when 'boom' conditions tended to create a class of 'floaters' who flocked to new jobs, quite possibly in other provinces, as soon as the ones on which they were originally employed ended. Of the provinces, Ontario has received the largest number of immigrants in each year since 1905 with the exception of 1929 when Manitoba took the lead. In 1930 and 1931, Manitoba was in second place; since that time Quebec has stood second as the immediate destination of new arrivals.

8.—Destinations of Immigrants into Canada, by Provinces, 1935-46

NOTE.—Figures for the years 1930-34 will be found at p. 186 of the 1946 Year Book; those for fiscal years ended Mar. 31, 1907-34 will be found at pp. 219-220 of the 1934-45 edition.

Year	Maritime Provinces	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia and Yukon	N.W.T.	Total
1935	1,060	2,258	4,786	708	408	735	1,315	7	11,277
1936	981	1,995	4,913	938	528	917	1,366	5	11,643
1937	1,136	2,611	6,463	1,430	616	1,175	1,667	3	15,101
1938	1,270	3,301	7,107	1,673	684	1,648	1,557	4	17,244
1939	1,167	3,433	5,957	1,316	1,227	1,695	2,190	9	16,994
1940	1,642	2,556	4,447	314	250	458	1,653	4	11,324
1941	1,717	1,931	3,365	193	186	288	1,647	2	9,329
1942	1,299	1,399	3,315	209	118	287	949	Nil	7,576
1943	1,852	1,369	3,852	190	171	310	760	"	8,504
1944	2,674	2,066	5,361	493	423	596	1,186	2	12,801
1945	4,049	3,428	9,342	1,168	1,067	1,401	2,264	3	22,722
1946	8,655	9,712	29,604	4,615	4,711	5,771	8,639	8	71,719[1]

[1] Includes 4 persons whose destinations were not given.

Occupations.—Immigrants are classified as follows: farming, labouring, mechanics, trading and clerical, mining, female domestics, and other. Of late years, the last-named class has accounted for about 60 p.c. of the total, owing to the curtailment of immigration and to the numbers of wives and children of service men. The statistics of occupations are, therefore, meaningless and have been discontinued until circumstances warrant the reappearance of the data.

Subsection 6.—Rejections of Immigrants

Prohibited Immigrants.—The immigration of certain classes of persons into Canada is prohibited. These classes include persons who are physically or mentally unable to earn a living, criminals, beggars, persons who believe in the overthrow of government by revolutionary influence, etc. The particular subsection of the Immigration Act defining this class is worded as follows:—

> (n) Persons who believe in or advocate the overthrow by force or violence of the Government of Canada or of constituted law and authority, or who disbelieve in or are opposed to organized government, or who advocate the assassination of public officials, or who advocate or teach the unlawful destruction of property.

Section 3 of the Immigration Act (R.S.C. 1927, c. 93), dealing with prohibited immigrants, was quoted *in extenso* in the editions of the Year Book published between 1934 and 1940.

Rejections and Deportation.—The Immigration Act provides for the rejection and deportation of immigrants belonging to the prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry.

9.—Rejections of Prospective Immigrants upon Arrival at Ocean Ports, by Principal Causes and by Nationalities, 1935-46

NOTE.—Figures for the calendar years 1931-34 are given at p. 159 of the 1940 Year Book; those for the fiscal years ended Mar. 31, 1903-34 will be found at p. 222 of the 1934-35 edition.

Item	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
CAUSE												
Medical	13	10	9	9	9	10	16	18	16	16	18	29
Civil	192	213	217	166	168	235	118	121	163	156	237	410
Totals	**205**	**223**	**226**	**175**	**177**	**245**	**134**	**139**	**179**	**172**	**255**	**439**
NATIONALITY												
British	133	128	94	90	120	101	76	95	127	133	189	276
United States	6	9	4	7	4	7	Nil	2	1	5	Nil	6
Other	66	86	128	78	53	137	58	42	51	34	66	157

While the majority of persons included in the figures of Table **10** have been previously shown in the statistics of immigration, a certain number of deserting seamen are included who have, of course, never been included in the immigration statistics. This situation became intensified during the war years.

10.—Deportations of Immigrants, including Accompanying Persons, after Admission, by Principal Causes and by Nationalities, 1935-46

NOTE.—Figures for the calendar years 1930-34 are given at p. 120 of the 1941 Year Book; those for the fiscal years ended Mar. 31, 1903-39 will be found at p. 160 of the 1940 edition.

Item	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
CAUSE												
Medical	90	52	44	38	33	14	12	20	17	17	28	16
Public charges	133	135	51	45	29	8	2	Nil	2	3	1	10
Criminality	251	124	106	101	113	96	74	85	107	104	92	114
Other causes	168	238	187	243	233	273	423	137	118	57	135	203
Accompanying deported persons	33	56	33	12	5	1	5	2	2	Nil	Nil	Nil
Totals	**675**	**605**	**421**	**439**	**413**	**392**	**516**	**244**	**246**	**181**	**256**	**343**
NATIONALITY												
British	157	210	140	139	123	113	140	82	82	61	132	163
United States	157	176	124	144	162	117	122	98	98	86	64	83
Other	361	219	157	156	128	162	254	64	66	34	60	97

Subsection 7.—Juvenile Immigration

Juvenile immigration, apart from children accompanying their parents, has not been a large factor since 1931, when the Dominion Government ceased to grant financial assistance for this particular form of immigration. In 1941 there were 33 juvenile immigrants but since that year none have been admitted. An outline of juvenile immigration, including those children brought to Canada under the British Empire Settlement Agreement, is given at p. 121 of the 1941 Year Book.

Subsection 8.—Oriental Immigration

Under wartime conditions, Oriental immigration ceased to be a problem and the economic effect of the presence of persons of Oriental origin can best be studied from census figures. An outline of the background and legislation connected with the immigration of Orientals into Canada is given at pp. 122–124 of the 1941 edition of the Year Book, and the table below presents statistics of Oriental immigration since 1906, the earliest year for which figures are available. These figures are given by sex at pp. 175–176 of the 1945 Year Book.

11.—Oriental Immigration to Canada, 1906-46

Year	Chinese	Japanese	East Indian	Total Oriental Immi-grants	Year	Chinese	Japanese	East Indian	Total Oriental Immi-grants
1906.....	70	2,996	2,326	5,392	1927....	2	511	56	569
1907.....	1,542	8,196	2,423	12,161	1928....	1	535	56	592
1908.....	2,163	869	309	3,341	1929....	1	180	49	230
1909.....	1,883	264	24	2,171	1930....	Nil	218	80	298
1910.....	4,667	429	16	5,112	1931....	"	174	52	226
1911.....	6,660	735	7	7,402	1932....	1	119	61	181
1912.....	6,995	682	5	7,682	1933....	1	106	36	143
1913.....	6,227	901	88	7,216	1934....	1	126	33	160
1914.....	1,600	684	Nil	2,284	1935....	Nil	70	26	96
1915.....	82	384	1	467	1936....	"	103	13	116
1916.....	313	555	Nil	868	1937....	1	146	11	158
1917.....	547	890	"	1,437	1938....	Nil	57	9	66
1918.....	2,988	1,039	"	4,027	1939....	"	44	19	63
1919.....	2,084	894	"	2,978	1940....	"	44	6	50
1920.....	1,329	526	9	1,864	1941....	"	4	1	5
1921.....	2,732	483	11	3,226	1942....	"	Nil	3	3
1922.....	810	395	22	1,227	1943....	"	1	Nil	1
1923.....	811	405	30	1,246	1944....	"	Nil	"	-
1924.....	7	511	49	567	1945....	"	"	1	1
1925.....	Nil	424	58	482	1946....	8	3	5	16
1926.....	"	443	70	513					

According to the Census of 1931, there were 46,519 persons of Chinese origin residing in Canada. In 1941 the number was 34,627, a decrease of almost 12,000. This decrease is mainly attributable to the fact that for several years prior to the War, numbers of Chinese returned to China without registering, which meant that they could not come back to Canada as returning residents and could be admitted only if they could comply with the requirements of the law as immigrants. Undoubtedly those who left without registering intended to remain permanently in China. Over the years, the number in this class would be very considerable.

Section 2.—Emigration and Returning Canadians

Emigration from Canada is an important factor tending to offset the immigration activities of the past and the movement from Canada to the United States has attained considerable proportions at certain periods. The two main factors have been the migration to the United States of Europeans originally immigrating to Canada and the emigration of native-born Canadians.

Since 1924 immigration officers have recorded the number of Canadians returning to Canada from the United States after having left Canada to reside in that country. Statistics of that movement are given in Table **12**.

12.—Canadians[1] Returned from the United States, 1926-46

Year	Canadian-Born Citizens	British Born Who Had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total	Year	Canadian-Born Citizens	British Born Who Had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total
1926.....	53,736	5,792	2,765	62,293	1937....	4,443	377	347	5,167
1927.....	36,838	3,560	1,680	42,078	1938....	4,016	333	310	4,659
1928.....	30,436	2,674	1,010	34,120	1939....	3,572	565	473	4,610
1929.....	27,328	2,265	886	30,479	1940....	4,705	207	78	4,990
1930.....	28,230	2,176	1,202	31,608	1941....	3,372	133	59	3,564
1931.....	18,503	1,135	714	20,352	1942....	3,269	170	28	3,467
1932.....	16,801	809	610	18,220	1943....	2,225	93	15	2,333
1933.....	9,330	457	422	10,209	1944....	2,070	120	20	2,210
1934.....	5,926	739	607	7,272	1945....	2,484	172	33	2,689
1935.....	4,961	632	785	6,378	1946....	4,535	558	84	5,177
1936.....	4,649	297	222	5,168					

[1] Not including aliens with Canadian domicile.

A question of considerable interest to Canadians is that of the permanent movement of population between Canada and the United States. In view of the lack of Canadian statistics on emigration, the following table has been compiled from figures supplied by the Immigration and Naturalization Service of the United States Department of Justice. Not all of the statistics are available by months, so that it has not been possible to present the figures on a calendar-year basis; they are, therefore, shown on that of the United States fiscal year, July 1-June 30. The column headed "Deportable Aliens Destined to Canada" covers persons permitted to return to Canada in lieu of deportation proceedings.

13.—Presumed Permanent Movement of Population Between Canada and the United States, Years Ended June 30, 1935-46

Year Ended June 30—	From United States to Canada				
	U.S. Citizens Entering Canada	Aliens Entering Canada	Aliens Deported to Canada	Deportable Aliens Destined to Canada	Total
1935..........................	3,049	1,324	1,554	2,471	8,398
1936..........................	2,872	1,272	1,784	2,721	8,649
1937..........................	2,862	1,027	1,833	3,463	9,185
1938..........................	3,306[1]	1,018	1,941	3,695	9,960[1]
1939..........................	2,933	965	1,915	3,604	9,417
1940..........................	2,695	769	1,503	3,981	8,948
1941..........................	3,331	835	957	2,453	7,576
1942..........................	3,413	595	631	2,187	6,826
1943..........................	2,053	439	464	2,350[1]	5,306
1944..........................	2,282	451	665	3,500[1]	6,898
1945..........................	2,260	567	474	2,600[1]	5,901
1946..........................	4,624	745	672	2,800[1]	8,841

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[1] Estimated.

13.—Presumed Permanent Movement of Population Between Canada and the United States, Years Ended June 30, 1935-46—concluded

Year Ended June 30—	From Canada to United States				Net Movement into (+) or from (−) Canada
	Immigrant Aliens from Canada	U.S. Citizens Returning from Canada	Persons Deported from Canada	Total	
1935	7,695	4,453	224	12,372	−3,974
1936	8,018	4,524	206	12,748	−4,099
1937	11,799	5,211	214	17,224	−8,039
1938	14,070	5,032	153	19,255	−9,295[1]
1939	10,501	4,233	153	14,887	−5,470
1940	10,806	4,264	113	15,183	−6,235
1941	11,280	3,572	79	14,931	−7,355
1942	10,450	4,725	107	15,282	−8,456
1943	9,571	4,892	78	14,541	−9,235
1944	9,821	4,743	69	14,633	−7,735
1945	11,079	5,138	188	16,405	−10,504
1946	20,434	6,769	414	27,617	−18,776

[1] Estimated.

Statistics of the permanent migration between Canada and the United Kingdom published by the British Board of Trade, are available from Jan. 1, 1924, to June 30, 1939. These are given at p. 169 of the 1942 Year Book.

Commencing Apr. 1, 1938, an enumeration was made of returning Canadians and other non-immigrants entering the Dominion from Newfoundland. The table below gives details of this movement for the calendar years 1944–46.

14.—Returning Canadians and Other Non-Immigrants Entering the Dominion from Newfoundland, 1944-46

Item	1944	1945	1946
Canadians returning after an absence of more than one year	314	705	526
Canadian born	*230*	*199*	*188*
Other British born	*75*	*499*	*329*
Naturalized with Canadian domicile	*2*	*6*	*7*
Aliens with Canadian domicile	*7*	*1*	*2*
Tourists, etc	11,447	12,368	15,738
Canadians returning after an absence of less than one year	12,040	9,970	7,909
Totals	**23,801**	**23,043**	**24,173**

CHAPTER VI.—VITAL STATISTICS*

CONSPECTUS

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A short historical outline of the early collection of vital statistics in Canada is given at pp. 104-105 of the 1940 edition of the Year Book. Co-operation of the provinces in the collection of comparable statistics was finally brought about as a result of the establishment of the Dominion Bureau of Statistics, under the Statistics Act of 1918. From 1921 to 1925 comparable vital statistics were compiled by the Bureau for all provinces, except Quebec. Quebec has been included in the registration area since Jan. 1, 1926. From then on, vital statistics have been on a comparable basis for all provinces.

The main tables of the Summary and of Sections 2 to 5 which follow cover statistics for the nine provinces. Section 6 deals with those of Yukon and the Northwest Territories; the reasons for this separation are given there. A Section on communicable diseases is at the end of the Chapter.

Classification of Vital Statistics.—Until recently, vital statistics were all classified by place of occurrence. In 1944, however, the classification of births and deaths by residence was begun; births being classified by the residence of the mother. A number of special tabulations by residence have been made for a few years before 1944; in Tables **2** to **5** the figures for 1941-45 are given by residence. In all the other tables of this Chapter, only the figures for 1944 and 1945 are by residence, except in Tables **11, 12, 13, 23, 28** and **34.** Headnotes of the tables throughout show the classification used.

For most provincial figures and rates, the change in classification makes comparatively little difference. But for individual localities, the differences may be quite large. In such cases, the figures for the years 1941 and after are not comparable with the five-year averages for the earlier years.

Section 1.—Population and Summary of Vital Statistics

Population by Sex and Age.—In calculating many vital statistics rates it is necessary to know not only the total population but also the distribution by sex and age. Hitherto, such calculations have usually been restricted to the years about the Census, since it was thought that estimates of population by sex and age for more than two or three years before or after each Census were not sufficiently accurate. On the other hand, the use of such estimates can fill important gaps in our knowledge of vital statistics phenomena.

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* This Chapter has been revised by J. T. Marshall, Director, Vital Statistics Division, Dominion Bureau of Statistics.

1.—Population of Canada[1] by Age Groups and Sex, Censuses 1931 and 1941 with Estimates (as at June 1) for Intercensal Years

Sex and Age	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
		'000	'000	'000	'000	'000	'000	'000	'000	'000		'000	'000	'000	'000
Males	**5,366,704**	**5,432**	**5,491**	**5,542**	5,588	**5,636**	**5,679**	**5,729**	**5,782**	**5,834**	**5,890,683**	**5,962**	**6,039**	**6,118**	**6,169**
0- 4 years	542,439	539	534	524	524	517	508	503	510	517	532,825	553	579	599	634
5- 9 "	571,845	567	565	562	549	547	545	541	531	533	528,134	520	518	528	525
10-14 "	542,358	552	564	572	578	575	573	571	568	557	555,519	554	550	539	533
15-19 "	524,913	529	524	525	525	539	549	560	566	570	564,548	558	555	554	550
20-24 "	463,378	474	487	498	506	512	513	508	508	506	517,145	532	545	559	549
25-29 "	409,664	419	427	433	441	445	453	465	476	483	487,396	492	493	490	492
30-34 "	367,795	372	377	383	388	394	400	409	416	426	430,664	440	450	462	468
35-39 "	358,827	358	358	357	358	361	365	371	379	387	395,653	402	407	411	414
40-44 "	347,484	349	349	350	349	348	347	346	346	346	348,039	354	362	371	378
45-49 "	321,291	326	330	332	333	333	333	334	334	333	332,008	332	332	332	333
50-54 "	267,056	277	286	293	299	305	308	312	314	315	315,404	317	318	318	318
55-59 "	198,897	208	217	227	236	244	252	259	266	271	274,893	281	285	290	293
60-64 "	156,637	160	163	166	170	176	182	191	201	210	218,202	225	231	238	244
65-69 "	120,549	123	126	130	135	139	143	146	150	156	162,233	167	172	178	183
70-74 "	88,502	90	92	94	96	98	100	103	105	108	110,944	115	118	122	125
75-79 "	49,997	52	55	58	61	62	64	64	65	66	67,104	69	71	73	75
80-84 "	23,867	25	25	26	27	28	29	31	32	34	34,038	35	36	36	37
85-89 "	8,665	9	9	9	10	10	11	11	11	12	12,607	13	13	14	14
90+ "	2,540	3	3	3	3	3	4	4	4	4	3,327	3	4	4	4
14 years or over	3,815,105	3,876	3,936	3,994	4,053	4,112	4,167	4,227	4,285	4,338	4,384,833	4,445	4,504	4,560	4,585
21 years or over	3,090,475	3,145	3,199	3,255	3,305	3,358	3,404	3,456	3,504	3,553	3,599,186	3,659	3,718	3,785	3,821
Females	**4,996,536**	**5,064**	**5,128**	**5,185**	**5,241**	**5,298**	**5,350**	**5,407**	**5,468**	**5,530**	**5,599,030**	**5,675**	**5,756**	**5,840**	**5,933**
0- 4 years	530,524	527	520	510	509	502	494	489	496	502	516,916	535	557	576	608
5- 9 "	559,460	554	551	549	539	537	535	529	519	520	515,791	510	507	515	511
10-14 "	530,531	540	554	562	567	563	560	557	555	545	543,815	542	539	529	522
15-19 "	513,894	519	514	513	515	527	537	551	557	560	554,190	549	544	543	540
20-24 "	447,129	459	474	487	499	504	508	503	502	502	513,846	527	540	550	552
25-29 "	375,995	387	399	410	419	429	438	452	464	475	478,017	484	486	487	499
30-34 "	340,351	343	346	349	353	359	367	379	390	402	411,703	423	436	449	462
35-39 "	329,113	331	331	331	331	333	336	340	346	354	362,690	370	377	385	396
40-44 "	298,109	303	309	314	319	322	324	325	325	326	327,566	332	337	343	350
45-49 "	263,488	269	274	278	281	285	288	293	298	301	302,361	305	308	312	316
50-54 "	221,198	229	235	241	246	252	257	262	266	271	275,611	280	284	287	290
55-59 "	167,759	175	183	191	198	205	211	217	223	227	231,450	238	244	251	257
60-64 "	137,602	140	142	144	147	152	157	165	173	181	188,415	194	199	204	210
65-69 "	110,409	112	115	118	122	125	129	131	135	139	145,099	149	154	159	163
70-74 "	82,999	85	87	89	91	94	96	98	100	103	105,878	109	112	115	118
75-79 "	48,603	51	53	57	60	62	64	65	66	67	68,457	70	72	74	76
80-84 "	25,283	26	26	27	28	29	31	33	35	36	37,410	38	39	40	41
85-89 "	10,465	10	11	11	12	13	13	13	13	14	15,010	15	16	16	17
90+ "	3,624	4	4	4	5	5	5	5	5	5	4,805	5	5	5	5
14 years or over	3,478,617	3,542	3,606	3,672	3,741	3,809	3,874	3,942	4,008	4,071	4,130,044	4,197	4,262	4,328	4,397
21 years or over	2,767,621	2,827	2,885	2,948	3,007	3,070	3,124	3,184	3,240	3,299	3,358,359	3,428	3,497	3,569	3,639
Totals	**10,363,240**	**10,496**	**10,619**	**10,727**	**10,829**	**10,934**	**11,029**	**11,136**	**11,250**	**11,364**	**11,489,713**	**11,637**	**11,795**	**11,958**	**12,102**

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[1] Exclusive of Yukon and the Northwest Territories.

Table **1** shows the population of Canada by sex and age for the years 1931 to 1945. The figures for 1931 and 1941 are those of the Census. For the other years they are estimates, calculated from the census figures, the births and deaths in each year, and known migration into and out of the country.

The starting point in this calculation was the population of the 1931 Census. The Census is taken at the beginning of June. The number of children under one year of age on June 1 of each year was obtained by subtracting the number who had died during the previous 12 months from the number who had been born. At each other year of age, the deaths at that age were subtracted from the census figures to give an estimate of the number at the next higher age in the following year. This process was carried forward for each year to 1941, and gave what may be called the 'expected' figures of population for that year. These expected figures were then compared with the actual figures of the 1941 Census, the differences at each age noted, and the estimates for the previous years revised in the light of these differences. The differences for each year were distributed between the two sexes and the different ages in the same ratio as the differences between the actual and 'expected' figures in 1941. The sum of the differences in 1941 was about 90,000 and is believed to be largely due to unrecorded migration into and out of the country.

The estimates for the years after 1941 are being made in the same way as the estimates for the years before 1941. The figures for 1942 to 1945 will be revised after the 1951 Census; those for the years 1932 to 1940 are now final.

The population of Canada in 1931 and 1941 by sex and age is shown graphically in the Chart following p. 185. Tables **2** to **6** give a summary of the vital statistics of Canada and the provinces for the years 1926 to 1945.

In comparing the birth, death and marriage rates of the provinces, it is useful to bear in mind that part of the differences observed may be due to differences in the sex and age distribution of their populations. Similarly, changes in these rates may be partly due to changes in this distribution. For example, the birth rate of Quebec is approximately the same as that of New Brunswick, and considerably higher than that of Prince Edward Island. Yet the fertility of the female population is highest in New Brunswick and approximately equal in the other two provinces. Over the past 15 years, the death rate in British Columbia has been rising, while in Ontario it has been more or less stable, with the result that, though 15 years ago the death rate in Ontario was considerably higher than in British Columbia, at present they are about equal. This does not mean, however, that the mortality rates at each age have risen in British Columbia. On the contrary, they have been falling. The death rate for the population as a whole has been rising because the increase in the proportion of the population in the higher age groups has more than outweighed the fall in the mortality rates at each age.

These remarks also apply to international comparisons of birth, death and marriage rates.

2.—Live Births and Birth Rates, per 1,000 Population, by Provinces, 1941-45, with Five-Year Averages, 1926-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]
					LIVE BIRTHS					
Av. 1926-30	1,735	11,016	10,327	82,771	68,704	14,392	21,298	15,924	10,355	236,521
Av. 1931-35	1,961	11,486	10,440	78,888	65,000	13,690	20,325	16,557	10,005	228,352
Av. 1936-40	2,054	12,060	11,105	78,509	64,461	13,515	18,675	16,282	12,106	228,767
Av. 1941-45	2,187	15,082	12,961	98,153	77,506	15,782	18,492	18,908	17,685	276,756
1941	2,070	13,816	12,150	89,563	71,980	14,714	18,473	17,419	15,039	255,224
1942	2,150	15,204	12,549	95,439	77,810	15,601	18,283	18,386	16,762	272,184
1943	2,171	15,266	12,948	99,216	80,677	16,333	18,639	19,425	18,748	283,423
1944	2,286	15,598	13,467	102,262	78,090	16,008	18,138	19,372	18,999	284,220
1945	2,258	15,527	13,693	104,283	78,974	16,253	18,926	19,939	18,877	288,730
				RATES PER 1,000 POPULATION						
Av. 1926-30	19·7	21·4	25·8	30·5	21·0	21·7	24·7	24·2	16·2	24·1
Av. 1931-35	21·8	21·9	24·9	26·6	18·5	19·4	21·9	22·1	14·0	21·5
Av. 1936-40	21·9	21·7	25·1	24·6	17·5	18·8	20·4	20·8	15·6	20·5
Av. 1941-45	23·8	25·1	28·0	28·5	19·8	21·6	21·6	23·6	19·8	23·5
1941	21·8	23·9	26·6	26·9	19·0	20·2	20·6	21·9	18·4	22·2
1942	23·9	25·7	27·0	28·2	20·0	21·5	21·6	23·7	19·3	23·4
1943	23·9	25·1	28·0	28·7	20·6	22·5	22·1	24·5	20·8	24·0
1944	25·1	25·5	29·1	29·2	19·7	21·9	21·4	23·7	20·4	23·8
1945	24·5	25·0	29·3	29·3	19·7	22·1	22·4	24·1	19·9	23·9

[1] Exclusive of the Territories.

3.—Deaths and Death Rates, per 1,000 Population, by Provinces, 1941-45, with Five-Year Averages, 1926-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]
					DEATHS					
Av. 1926-30	969	6,362	5,019	36,645	36,650	5,507	6,256	5,530	5,986	108,925
Av. 1931-35	1,001	6,073	4,710	32,796	35,782	5,413	6,037	5,447	6,344	103,602
Av. 1936-40	1,080	6,126	5,040	33,221	37,794	6,136	6,366	6,054	7,697	109,514
Av. 1941-45	967	6,313	5,009	34,312	39,715	6,601	6,504	6,346	9,330	115,097
1941	1,130	6,888	5,111	34,450	39,173	6,440	6,564	6,387	8,496	114,639
1942	964	6,377	5,080	33,825	39,053	6,367	6,287	6,059	8,836	112,848
1943	929	6,447	4,856	35,125	41,070	6,946	6,784	6,509	9,865	118,531
1944	926	6,229	5,131	34,813	39,781	6,701	6,454	6,320	9,697	116,052
1945	888	5,625	4,865	33,348	39,499	6,550	6,429	6,454	9,756	113,414
				RATES PER 1,000 POPULATION						
Av. 1926-30	11·0	12·4	12·5	13·5	11·2	8·3	7·3	8·4	9·3	11·1
Av. 1931-35	11·1	11·6	11·3	11·0	10·2	7·7	6·5	7·3	8·9	9·8
Av. 1936-40	11·5	11·0	11·4	10·4	10·3	8·5	7·0	7·7	9·9	9·8
Av. 1941-45	10·5	10·5	10·8	10·0	10·2	9·0	7·6	7·9	10·4	9·8
1941	11·9	11·9	11·2	10·3	10·3	8·8	7·3	8·0	10·4	10·0
1942	10·7	10·8	10·9	10·0	10·1	8·8	7·4	7·8	10·2	9·7
1943	10·2	10·6	10·5	10·2	10·5	9·6	8·1	8·2	11·0	10·0
1944	10·2	10·2	11·1	9·9	10·0	9·2	7·6	7·7	10·4	9·7
1945	9·7	9·1	10·4	9·4	9·9	8·9	7·6	7·8	10·3	9·4

[1] Exclusive of the Territories.

4.—Infant Mortality[1] and Rates per 1,000 Live Births, by Provinces, 1941-45, with Five-Year Averages, 1926-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[2]
	INFANT DEATHS									
Av. 1926-30....	122	934	1,040	10,518	5,091	1,031	1,560	1,195	571	22,063
Av. 1931-35....	131	840	857	7,757	3,962	835	1,260	997	463	17,101
Av. 1936-40....	142	782	913	6,470	3,196	773	1,025	869	532	14,701
Av. 1941-45....	114	870	956	6,705	3,265	807	862	829	686	15,094
1941...........	163	905	929	6,804	3,270	780	946	885	554	15,236
1942...........	106	886	972	6,684	3,120	793	801	695	601	14,658
1943...........	98	897	878	6,653	3,381	897	881	812	716	15,213
1944...........	102	838	1,035	6,918	3,346	786	858	889	767	15,539
1945...........	102	823	966	6,464	3,209	781	824	862	792	14,823
	RATES PER 1,000 LIVE BIRTHS									
Av. 1926-30....	70	85	101	127	74	72	73	75	55	93
Av. 1931-35....	67	73	82	98	61	61	62	60	46	75
Av. 1936-40....	69	65	82	82	50	57	55	53	44	64
Av. 1941-45....	52	58	74	68	42	51	47	44	39	55
1941...........	79	66	76	76	45	53	51	51	37	60
1942...........	49	58	77	70	40	51	44	38	36	54
1943...........	45	59	68	67	42	55	47	42	38	54
1944...........	45	54	77	68	43	49	47	46	40	55
1945...........	45	53	71	62	41	48	44	43	42	51

[1] Under one year of age. [2] Exclusive of the Territories.

5.—Natural Increase and Rates per 1,000 Population, by Provinces, 1941-45, with Five-Year Averages, 1926-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]
	EXCESS OF BIRTHS OVER DEATHS									
Av. 1926-30....	766	4,653	5,308	46,126	32,054	8,885	15,042	10,393	4,369	127,596
Av. 1931-35....	960	5,414	5,730	46,092	29,218	8,277	14,288	11,110	3,661	124,750
Av. 1936-40....	974	5,934	6,065	45,288	26,668	7,379	12,310	10,228	4,408	119,253
Av. 1941-45....	1,220	8,769	7,952	63,841	37,791	9,181	11,988	12,562	8,355	161,659
1941...........	940	6,928	7,039	55,113	32,807	8,274	11,909	11,032	6,543	140,585
1942...........	1,186	8,827	7,469	61,614	38,757	9,234	11,996	12,327	7,926	159,336
1943...........	1,242	8,819	8,092	64,091	39,607	9,387	11,855	12,916	8,883	164,892
1944...........	1,360	9,369	8,336	67,449	38,309	9,307	11,684	13,052	9,302	168,168
1945...........	1,370	9,902	8,828	70,935	39,475	9,703	12,497	13,485	9,121	175,316
	RATES PER 1,000 POPULATION									
Av. 1926-30....	8·7	9·0	13·2	17·0	9·8	13·4	17·5	15·8	6·8	13·0
Av. 1931-35....	10·7	10·3	13·6	15·6	8·3	11·7	15·4	14·8	5·1	11·7
Av. 1936-40....	10·4	10·7	13·7	14·2	7·2	10·3	13·4	13·1	5·7	10·7
Av. 1941-45....	13·3	14·6	17·2	18·5	9·6	12·6	14·0	15·7	9·4	13·7
1941...........	9·9	12·0	15·4	16·6	8·7	11·4	13·3	13·9	8·0	12·2
1942...........	13·2	14·9	16·1	18·2	9·9	12·7	14·2	15·9	9·1	13·7
1943...........	13·7	14·5	17·5	18·5	10·1	12·9	14·0	16·3	9·8	14·0
1944...........	14·9	15·3	18·0	19·3	9·7	12·7	13·8	16·0	10·0	14·1
1945...........	14·8	15·9	18·9	19·9	9·8	13·2	14·8	16·3	9·6	14·5

[1] Exclusive of the Territories.

6.—Marriages and Rates per 1,000 Population, by Provinces, 1941-45, with Five-Year Averages, 1926-45

NOTE.—Marriages are classified by place of occurrence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]
	MARRIAGES									
Av. 1926-30....	473	3,224	2,970	18,731	25,449	4,951	6,036	5,265	4,786	71,886
Av. 1931-35....	496	3,522	2,737	17,089	24,260	5,015	5,680	5,530	4,267	68,594
Av. 1936-40....	623	4,796	3,801	27,111	32,719	6,931	6,599	7,192	7,053	96,824
Av. 1941-45....	686	6,302	4,433	33,126	38,042	7,295	6,541	7,977	9,535	113,936
1941...........	673	6,596	4,941	32,782	43,270	8,305	7,036	8,470	9,769	121,842
1942...........	778	6,874	4,934	33,857	45,466	8,395	7,207	9,034	10,827	127,372
1943...........	653	6,105	3,985	33,856	36,109	6,901	6,172	7,771	9,385	110,937
1944...........	646	5,942	3,813	31,922	31,227	6,294	5,919	7,299	8,434	101,496
1945...........	680	5,992	4,491	33,211	34,137	6,579	6,369	7,310	9,262	108,031
	RATES PER 1,000 POPULATION									
Av. 1926-30....	5·4	6·3	7·4	6·9	7·8	7·5	7·0	8·0	7·5	7·3
Av. 1931-35....	5·5	6·7	6·5	5·8	6·9	7·1	6·1	7·4	6·0	6·5
Av. 1936-40....	6·6	8·6	8·6	8·5	8·9	9·6	7·2	9·2	9·1	8·7
Av. 1941-45....	7·5	10·5	9·6	9·6	9·7	10·0	7·6	10·0	10·7	9·7
1941...........	7·1	11·4	10·8	9·8	11·4	11·4	7·9	10·6	11·9	10·6
1942...........	8·6	11·6	10·6	10·0	11·7	11·6	8·5	11·6	12·4	10·9
1943...........	7·2	10·1	8·6	9·8	9·2	9·5	7·3	9·8	10·4	9·4
1944...........	7·1	9·7	8·3	9·1	7·9	8·6	7·0	8·9	9·0	8·5
1945...........	7·4	9·6	9·6	9·3	8·5	8·9	7·5	8·8	9·8	8·9

[1] Exclusive of the Territories.

Canadian Life Tables.—Life tables have been calculated on the basis of the population of 1941 and the deaths of 1940-42. These are the second official life tables for Canada to be published, the first having been calculated on the basis of the deaths of 1930-32 and the population of 1931. The two life tables are given in abbreviated form in Tables 7 and 8.

Life tables give a summary of the health and general conditions of survival of the population in a conventional, standard form. A hypothetical number (100,000) births of each sex is assumed. The life tables show how, on the basis of the mortality rates at each age in the given years, these 100,000 of each sex are reduced in number by death. Thus, for example, in 1940-42, of 100,000 males born, 6,250 died in their first year, so that 93,750 survived to one year of age; 676 died in their second year, so that 93,074 survived to two years of age; and so on. At 100 years of age, only 50 of the original 100,000 would have survived. The probability of death at each age is the ratio between the number of deaths and the population at each age. Finally, the expectation of life is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.

7.—Canadian Life Tables, 1941, Based on Population, 1941, and Deaths, 1940-42

Age	Males				Females			
	No. Living at Each Age	No. Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life	No. Living at Each Age	No. Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life
Under 1 year......	100,000	6,250	·06250	62·95	100,000	4,931	·04931	66·29
1 year.........	93,750	676	·00721	66·14	95,069	603	·00634	68·73
2 years........	93,074	370	·00398	65·62	94,466	308	·00326	68·16
3 “	92,704	273	·00294	64·88	94,158	247	·00262	67·38
4 “	92,431	216	·00234	64·07	93,911	182	·00194	66·56
5 years..........	92,215	729	·00198	63·22	93,729	577	·00157	65·69
10 “	91,486	585	·00122	58·70	93,152	449	·00090	61·08
15 “	90,901	887	·00163	54·06	92,703	673	·00122	56·36
20 “	90,014	1,147	·00241	49·51	92,030	923	·00180	51·76
25 “	88,867	1,126	·00257	45·18	91,107	1,112	·00231	47·26
30 “	87,741	1,208	·00260	40·73	89,995	1,235	·00260	42·81
35 “	86,533	1,541	·00317	36·26	88,760	1,518	·00314	38·37
40 “	84,992	2,067	·00428	31·87	87,242	1,849	·00386	33·99
45 “	82,925	2,874	·00598	27·60	85,393	2,434	·00504	29·67
50 “	80,051	4,169	·00895	23·49	82,959	3,353	·00701	25·46
55 “	75,882	5,867	·01346	19·64	79,606	4,776	·01042	21·42
60 “	70,015	8,072	·02029	16·06	74,830	6,619	·01528	17·62
65 “	61,943	10,649	·03090	12·81	68,211	9,500	·02426	14·08
70 “	51,294	13,173	·04759	9·94	58,711	12,539	·03812	10·93
75 “	38,121	14,486	·07547	7·48	46,172	15,448	·06358	8·19
80 “	23,635	12,452	·11738	5·54	30,724	14,746	·10196	6·03
85 “	11,183	7,587	·17404	4·05	15,978	10,302	·15776	4·35
90 “	3,596	2,944	·25042	2·93	5,676	4,506	·23391	3·13
95 “	652	602	·35167	2·09	1,170	1,056	·32852	2·26
100 “	50	50	·48197	1·46	114	114	·44010	1·64

8.—Canadian Life Tables, 1931, Based on Population, 1931, and Deaths, 1930-32

Age	Males				Females			
	No. Living at Each Age	No. Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life	No. Living at Each Age	No. Dying Between Each Age and the Next	Probability of Dying at Each Age	Expectation of Life
Under 1 year......	100,000	8,695	·08695	60·00	100,000	6,931	·06931	62·10
1 year.........	91,305	1,083	·01187	64·69	93,069	1,006	·01080	65·71
2 years........	90,222	538	·00596	64·46	92,063	457	·00496	65·42
3 “	89,684	369	·00411	63·84	91,606	342	·00374	64·75
4 “	89,315	282	·00316	63·11	91,264	265	·00290	63·99
5 years..........	89,033	962	·00262	62·30	90,999	814	·00232	63·17
10 “	88,071	710	·00160	57·96	90,185	688	·00140	58·72
15 “	87,361	1,092	·00207	53·41	89,497	1,047	·00195	54·15
20 “	86,269	1,410	·00308	49·05	88,450	1,439	·00295	49·76
25 “	84,859	1,430	·00340	44·83	87,011	1,653	·00367	45·54
30 “	83,429	1,476	·00341	40·55	85,358	1,746	·00398	41·38
35 “	81,953	1,774	·00398	36·23	83,612	1,969	·00448	37·19
40 “	80,179	2,155	·00494	31·98	81,643	2,209	·00512	33·02
45 “	78,024	2,781	·00630	27·79	79,434	2,678	·00615	28·87
50 “	75,243	3,918	·00903	23·72	76,756	3,500	·00804	24·79
55 “	71,325	5,380	·01329	19·88	73,256	4,882	·01162	20·84
60 “	65,945	7,262	·01938	16·29	68,374	6,679	·01714	17·15
65 “	58,683	9,805	·02975	12·98	61,695	9,088	·02603	13·72
70 “	48,878	12,290	·04634	10·06	52,607	11,891	·04057	10·63
75 “	36,588	13,701	·07403	7·57	40,716	14,262	·06735	7·98
80 “	22,887	11,909	·11527	5·61	26,454	13,118	·10769	5·92
85 “	10,978	7,391	·17167	4·10	13,336	8,597	·16086	4·38
90 “	3,587	2,916	·24711	2·97	4,739	3,695	·22860	3·24
95 “	671	615	·34454	2·14	1,044	925	·31227	2·40
100 “	56	56	·46645	1·53	119	119	·41299	1·77

A comparison of the two life tables shows a striking reduction during the ten years in the mortality rates for both males and females. Mortality rates for males are higher at all ages than for females, particularly in infancy. Infant mortality in 1940-42 was 62 per 1,000 live births for males compared to 49 per 1,000 for females. Because infant mortality is still so high, the expectation of life at birth is less for both sexes than at age 1. Males who have survived their first year have an expectation of life of 66 years and females of 69 years. The expectation of life of a boy at age 15 is 54 years, and of a girl 56 years. At age 25, it is 45 years for men and 47 for women. At age 70, when people become eligible for old age pensions, it is 10 years for men and 11 years for women. In 1930-32 mortality rates for females from 25 to 40 years of age were higher than those for males. In 1940-42, however, because of the reduction in maternal mortality, this was not so.

Section 2.—Births

Birth rates in most countries of Europe and in North America fell between 1920 and 1939. In many countries of northwestern Europe, this fall had already set in many years earlier. Its immediate effect on the natural increase of the population was partly offset by a simultaneous fall in the death rate. Available statistics show that since 1939, the fall in the birth rate has, for the time being, ceased. In Canada and the United States there was a great increase in births during the war period.

The birth rate for England and Wales was 29·9 per 1,000 in 1891-1900 and 27·3 per 1,000 in 1901-10. It fell to 16·5 in 1926-30, to 14·4 in 1933, and to its lowest figure of 14·2 in 1941. Since then it has risen to 15·8 in 1942, 18·0 in 1944, 16·0 in 1945.

In France, the birth rate began to fall almost 100 years ago. It fell from 24·4 per 1,000 in 1891-1900 to 20·9 per 1,000 in 1901-10 and 18·2 in 1926-30. It was 15·3 in 1935, 13·3 in 1940 and 16·4 in 1945.

In Germany the fall in the birth rate began later than in France and England and was faster. From 36·1 per 1,000 in 1891-1900 it fell to 33·0 in 1901-10, to 18·4 in 1926-30, and to its lowest figure of 14·7 in 1933. After the Nazis came to power, it rose to 18·9 in 1935 and to 20·0 in 1940. In 1941, no doubt owing to the War, it fell to 18·6 and in 1942, the last year for which figures are available, to 14·9.

In the United States, birth registration has included all States since 1933. In 1920, in the registration area of that year (24 States with the great majority of the population) the birth rate was 23·7 per 1,000. In 1926-30 it was 19·7 and fell to 16·6 in 1933. It was 16·9 in 1935, 17·9 in 1940, 21·9 in 1943, 19·8 in 1945.

In Canada, in 1921, the birth rate was 29·4 per 1,000. Since a rate of 35 per 1,000 is very high for countries of modern western civilization, the Canadian birth rate had probably not fallen far or for long before then. But it fell continuously until 1937, when it was 20·0 per 1,000. Since then, owing to economic recovery and the War it rose to 21·5 in 1940, to 24·0 in 1943 and to 23·9 in 1945. The birth rate in the provinces followed the same general trend, though in the Maritimes the fall stopped before 1930. The fall during the depression and the subsequent rise was greatest in the industrial provinces of Ontario, Quebec and British Columbia.

9.—Live Births by Sex, Birth Rates, and Ratio of Males to Females, by Provinces, 1941-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Province and Year	Total Live Births	Rate per 1,000 Population	Males		Females		Males to 1,000 Females
			Number	P.C. of Total	Number	P.C. of Total	
Prince Edward Island 1941	2,049	21·6	1,078	52·6	971	47·4	1,110
1942	2,137	23·7	1,074	50·3	1,063	49·7	1,010
1943	2,171	23·9	1,109	51·1	1,062	48·9	1,044
1944	2,286	25·1	1,158	50·7	1,128	49·3	1,027
1945	2,258	24·5	1,167	51·7	1,091	48·3	1,070
Nova Scotia 1941	13,903	24·1	7,074	50·9	6,829	49·1	1,036
1942	15,306	25·9	7,880	51·5	7,426	48·5	1,061
1943	15,394	25·4	7,889	51·2	7,505	48·8	1,051
1944	15,598	25·5	8,060	51·7	7,538	48·3	1,069
1945	15,527	25·0	8,086	52·1	7,441	47·9	1,087
New Brunswick 1941	12,272	26·8	6,200	50·5	6,072	49·5	1,021
1942	12,663	27·3	6,591	52·0	6,072	48·0	1,085
1943	13,090	28·3	6,756	51·6	6,334	48·4	1,067
1944	13,467	29·1	6,949	51·6	6,518	48·4	1,066
1945	13,693	29·3	6,999	51·1	6,694	48·9	1,046
Quebec 1941	89,209	26·8	45,905	51·5	43,304	48·5	1,060
1942	95,031	28·0	49,113	51·7	45,918	48·3	1,070
1943	98,744	28·6	50,848	51·5	47,896	48·5	1,062
1944	102,262	29·2	52,673	51·5	49,589	48·5	1,062
1945	104,283	29·3	53,582	51·4	50,701	48·6	1,057
Ontario 1941	72,262	19·1	37,254	51·6	35,008	48·4	1,064
1942	78,192	20·1	40,412	51·7	37,780	48·3	1,070
1943	81,173	20·7	41,592	51·2	39,581	48·8	1,051
1944	78,090	19·7	40,455	51·8	37,635	48·2	1,075
1945	78,974	19·7	40,817	51·7	38,157	48·3	1,070
Manitoba 1941	14,812	20·3	7,616	51·4	7,196	48·6	1,058
1942	15,670	21·6	8,000	51·1	7,670	48·9	1,043
1943	16,412	22·6	8,463	51·6	7,949	48·4	1,065
1944	16,008	21·9	8,324	52·0	7,684	48·0	1,083
1945	16,253	22·1	8,425	51·8	7,828	48·2	1,076
Saskatchewan 1941	18,464	20·6	9,472	51·3	8,992	48·7	1,053
1942	18,189	21·4	9,416	51·8	8,773	48·2	1,073
1943	18,504	22·0	9,645	52·1	8,859	47·9	1,089
1944	18,138	21·4	9,330	51·4	8,808	48·6	1,059
1945	18,926	22·4	9,794	51·7	9,132	48·3	1,072
Alberta 1941	17,308	21·7	8,882	51·3	8,426	48·7	1,054
1942	18,317	23·6	9,417	51·4	8,900	48·6	1,058
1943	19,290	24·4	9,840	51·0	9,450	49·0	1,041
1944	19,372	23·7	9,978	51·5	9,394	48·5	1,062
1945	19,939	24·1	10,315	51·7	9,624	48·3	1,072
British Columbia 1941	15,038	18·4	7,694	51·2	7,344	48·8	1,048
1942	16,808	19·3	8,681	51·6	8,127	48·4	1,068
1943	18,802	20·9	9,583	51·0	9,219	49·0	1,039
1944	18,999	20·4	9,725	51·2	9,274	48·8	1,049
1945	18,877	19·9	9,727	51·5	9,150	48·5	1,063
Canada (Exclusive of the Territories) **1941**	**255,317**	**22·2**	**131,175**	51·4	**124,142**	48·6	**1,057**
1942	**272,313**	**23·4**	**140,581**	51·6	**131,729**	48·4	**1,067**
1943	**283,580**	**24·0**	**145,725**	51·4	**137,855**	48·6	**1,057**
1944	**284,220**	**23·8**	**146,652**	51·6	**137,568**	48·4	**1,066**
1945	**288,730**	**23·9**	**148,912**	51·6	**139,818**	48·4	**1,065**

Sex of Live Births.—Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-45 has varied between 1,057 and 1,067.

Hospitalization and medical attendance at birth have increased in Canada. In 1926-30, only 22 p.c. of live births occurred in hospitals, while in 1940-42 the proportion was 49·5 p.c. and in 1945, 63 p.c. The provinces still differ greatly in this respect. In Quebec, less than one-third of births take place in hospitals, and in New Brunswick less than one-half. In Nova Scotia 72 p.c. of births were hospitalized in 1945, in Ontario 82 p.c., in the Prairies 87 p.c., and in British Columbia 93 p.c.

International Comparisons.—A comparison of the birth rates in Canada and the provinces with those in other countries is shown in Table **10**. For Germany, Italy and most countries that were occupied by the enemy, the figures are given for 1939. Later figures, even when available, cannot be considered reliable. This also applies to later tables showing international comparisons, i.e., Tables **22**, **37** and **38**.

10.—Birth Rates per 1,000 Population of Various Countries of the World Compared with Canada and the Provinces for Recent Years

(Sources: League of Nations Year Book and other official sources. In certain cases final figures are not available and provisional data are shown.)

Country or Province	Year	Birth Rate	Country or Province	Year	Birth Rate
Egypt	1944	52·3	**Canada**—concluded		
Palestine (excluding Bedouins)	1945	44·8	British Columbia	1945	19·9
Costa Rica	1944	41·8			
Straits Settlements	1940	41·3	Ontario	1945	19·7
Panama	1943	39·0			
Salvador	1943	38·1	Greece	1939	23·5
Ceylon	1945	36·8	Roumania	1943	23·4
Chile	1945	33·3	New Zealand	1945	23·1
Jamaica	1944	33·0	Denmark	1944	22·6
Japan	1941	29·9	Lithuania	1939	22·4
Newfoundland and Labrador	1944	29·3	Spain	1944	22·4
Union of South Africa (Whites)	1944	26·6	Eire	1945	22·3
British India	1944	25·1	Northern Ireland	1945	22·0
Poland	1938	24·5	Bulgaria	1944	21·9
Netherlands	1944	24·0	Australia	1945	21·8
			Austria	1939	20·9
Canada	**1945**	**23·9**	Latvia	1941	20·7
			Iceland	1943	20·5
New Brunswick	1945	29·3	Germany (territory of 1937)	1939	20·3
			Finland	1944	20·2
Quebec	1945	29·3	Sweden	1945	20·2
			United States	1945	19·8
Nova Scotia	1945	25·0	Switzerland	1944	19·6
			Hungary	1943	19·4
Prince Edward Island	1945	24·5	Uruguay	1942	19·4
			Estonia	1941	19·2
Alberta	1945	24·1	Italy	1945	18·3
			Scotland	1945	16·9
Saskatchewan	1945	22·4	France (86 departments)	1945	16·4
			England and Wales	1945	16·0
Manitoba	1945	22·1	Belgium	1945	15·5

Births in Urban Centres.—Table **11** shows the number of live births in the urban centres of Canada with 10,000 population or over in 1941. The five-year averages for 1936-40 show births by place of occurrence. Many of these births were to women who lived elsewhere. The figures for 1941-45 are by the residence of the mother, and show the number of births, wherever occurring, to residents of each centre. The two sets of figures are thus not comparable.

11.—Live Births in Urban Centres of 10,000 Population or Over, 1941-45, with Five-Year Averages, 1936-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Province and Urban Centre	Census Populations		Average, 1936-40	Average, 1941-45	1941	1942	1943	1944	1945
	1931	1941							
	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E. Island—									
Charlottetown	12,361	14,821	440	385	328	400	393	407	395
Nova Scotia—									
Dartmouth	9,100	10,847	122	405	309	414	442	430	430
Glace Bay	20,706	25,147	892	729	742	737	729	718	718
Halifax	59,275	70,488	1,772	2,027	1,811	2,104	2,084	2,094	2,044
Sydney	23,089	28,305	640	930	822	948	989	953	940
Truro	7,901	10,272	226	292	291	304	288	303	274
New Brunswick—									
Fredericton	8,830	10,062	241	228	178	239	197	237	287[1]
Moncton	20,689	22,763	550	644	526	641	666	721	667
Saint John	47,514	51,741	1,294	1,364	1,254	1,356	1,443	1,445	1,322
Quebec—									
Cap-de-la-Madeleine	8,748	11,961	281	371	351	387	365	363	388
Chicoutimi	11,877	16,040	551	890	676	849	928	1,091	904
Drummondville	6,609	10,555	253	370	332	355	377	403	385
Granby	10,587	14,197	335	464	458	452	444	451	515
Hull	29,433	32,947	842	1,174	1,054	1,120	1,260	1,209	1,229
Joliette	10,765	12,749	298	407	350	432	438	411	406
Jonquière	9,448	13,769	477	862	646	851	986	968	861
Lachine	18,630	20,051	394	501	437	516	515	504	534
Lévis	11,724	11,991	231	328	272	323	355	350	339
Montreal	818,577	903,007	17,993	21,356	18,846	20,867	22,067	22,225	22,775
Outremont	28,641	30,751	52	331	279	327	380	353	316
Quebec	130,594	150,757	3,976	4,315	3,983	4,174	4,411	4,605	4,402
St. Hyacinthe	13,448	17,798	409	419	382	449	387	459	417
St. Jean	11,256	13,646	311	415	366	367	441	446	457
St. Jérôme	8,967	11,329	257	429	333	446	453	458	454
Shawinigan Falls	15,345	20,325	528	850	690	830	877	896	957
Sherbrooke	28,993	35,965	872	1,141	963	1,131	1,191	1,166	1,256
Sorel	10,320	12,251	240	480	358	423	495	572	550
Thetford Mines	10,701	12,716	342	417	436	413	402	423	409
Three Rivers	35,450	42,007	1,144	1,235	1,281	1,271	1,225	1,199	1,199
Valleyfield	11,411	17,052	350	665	570	706	716	703	631
Verdun	60,745	67,349	827	1,520	1,306	1,480	1,649	1,579	1,588
Westmount	24,235	26,047	260	251	179	203	295	305	275
Ontario—									
Belleville	13,790	15,710	478	383	342	392	419	369	391
Brantford	30,107	31,948	626	765	685	764	820	757	797
Brockville	9,736	11,342	303	260	209	277	269	271	276
Chatham	14,569	17,369	735	412	414	427	446	362	413
Cornwall	11,126	14,117	606	506	452	479	559	526	516
Forest Hill	5,207	11,757	7	158	161	91	168	183	188
Fort William	26,277	30,585	520	648	565	647	708	653	668

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[1] Includes Devon.

11.—Live Births in Urban Centres of 10,000 Population or Over, 1941-45, with Five-Year Averages, 1936-45—concluded

Province and Urban Centre	Census Populations		Average, 1936-40	Average, 1941-45	1941	1942	1943	1944	1945
	1931	1941							
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Ontario—concluded									
Galt	14,006	15,346	303	312	283	315	322	342	299
Guelph	21,075	23,273	294	469	435	484	502	466	456
Hamilton	155,547	166,337	2,928	3,462	2,902	3,480	3,762	3,676	3,489
Kingston	23,439	30,126	763	844	702	831	971	875	842
Kitchener	30,793	35,657	788	711	678	750	724	659	743
London	71,148	78,264	1,589	1,689	1,541	1,609	1,784	1,735	1,774
Niagara Falls	19,046	20,589	422	540	479	570	593	533	527
North Bay	15,528	15,599	407	362	336	348	360	385	383
Oshawa	23,439	26,813	545	584	526	605	616	579	593
Ottawa	126,872	154,951	3,178	3,357	3,086	3,263	3,336	3,492	3,609
Owen Sound	12,839	14,002	348	315	316	321	332	324	282
Pembroke	9,368	11,159	296	299	286	308	295	303	302
Peterborough	22,327	25,350	675	680	559	724	675	682	759
Port Arthur	19,818	24,426	606	558	528	589	575	538	560
St. Catharines	24,753	30,275	648	734	620	735	770	790	757
St. Thomas	15,430	17,132	398	382	343	398	420	382	368
Sarnia	18,191	18,734	464	447	382	396	485	465	509
Sault Ste. Marie	23,082	25,794	595	725	660	747	747	726	744
Stratford	17,742	17,038	393	288	282	279	302	314	265
Sudbury	18.518	32,203	1,317	1,324	1,325	1,367	1,409	1,282	1,237
Timmins	14,200	28,790	855	833	987	966	776	683	751
Toronto	631.207	667,457	10,441	11,163	9,476	11,932	11,709	11,336	11,360
Welland	10,709	12,500	356	357	270	393	429	369	323
Windsor	98,179	105,311	2,173	2,383	2,199	2,457	2,585	2,426	2,248
Woodstock	11,395	12,461	283	267	225	305	302	236	265
Manitoba—									
Brandon	17,082	17,383	278	356	269	336	431	389	355
St. Boniface	16,305	18,157	1,290	425	374	393	440	471	448
Winnipeg	218,785	221,960	3,785	4,087	3,604	4,001	4,389	4,165	4,276
Saskatchewan—									
Moose Jaw	21,299	20,753	496	462	385	466	533	470	454
Prince Albert	9,905	12,508	508	340	301	337	329	365	368
Regina	53,209	58,245	1,331	1,172	1,100	1,154	1,246	1,155	1,205
Saskatoon	43,291	43,027	928	843	754	801	854	899	907
Alberta—									
Calgary	83,761	88,904	1,720	2,058	1,761	1,968	2,139	2,190	2,231
Edmonton	79,197	93,817	2,731	2,379	1,891	2,108	2,538	2,565	2,793
Lethbridge	13,489	14,612	638	372	261	377	391	409	421
Medicine Hat	10,300	10,571	355	287	223	248	333	332	300
British Columbia—									
New Westminster	17,524	21,967	789	493	480	438	541	504	504
Vancouver	246,593	275,353	4,039	5,397	4,449	5,216	5,780	5.827	5,711
Victoria	39,082	44,068	854	1,150	782	1,046	1,411	1,383	1,130

Illegitimacy.—Less than 5 p.c. of live births in Canada are illegitimate. This percentage is comparatively low. Its apparent increase since 1926 is partly due to the more complete registration of illegitimate births, which has been brought about by the co-operation of provincial registration officials and social welfare agencies, and by their more sensible and sympathetic treatment of illegitimacy.

Table **12** shows the number of illegitimate live births in Canada and the provinces, and their proportion to all live births.

12.—Illegitimate Live Births, and Percentages of Total Live Births, by Provinces, 1941-45, with Five-Year Averages, 1926-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Item		P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Totals—Illegitimate Live Births—	Av. 1926-30	42	558	299	2,334	2,196	501	489	479	240	7,138
	Av. 1931-35	74	652	373	2,431	2,707	501	651	613	330	8,333
	Av. 1936-40	83	766	415	2,539	2,939	506	663	643	475	9,030
	Av. 1941-45	115	1,067	619	3,001	3,712	595	697	849	879	11,534
	1941	112	958	458	2,670	3,338	505	669	715	675	10,100
	1942	110	1,028	533	2,989	3,731	556	617	769	747	11,080
	1943	116	954	645	3,189	3,652	583	665	864	804	11,472
	1944	101	1,165	698	3,098	3,764	653	703	849	1,048	12,079
	1945	138	1,228	761	3,058	4,075	677	829	1,050	1,121	12,937
Percentages—Illegitimate to Total Live Births—	Av. 1926-30	2·4	5·1	2·9	2·8	3·2	3·5	2·3	3·0	2·3	3·01
	Av. 1931-35	3·8	5·7	3·6	3·1	4·2	3·7	3·2	3·7	3·3	3·65
	Av. 1936-40	4·0	6·4	3·7	3·2	4·6	3·7	3·6	3·9	3·9	3·95
	Av. 1941-45	5·3	7·1	4·8	3·1	4·8	3·8	3·8	4·5	5·0	4·17
	1941	5·4	6·9	3·8	3 0	4·6	3·4	3·6	4·1	4·5	3·96
	1942	5·1	6·8	4·2	3·1	4·8	3·6	3·4	4·2	4·5	4·07
	1943	5·3	6·2	5·0	3·2	4·5	3·6	3·6	4·4	4·3	4·05
	1944	4·4	7·5	5·2	3·0	4·8	4·1	3·9	4·4	5·5	4·25
	1945	6·1	7·9	5·6	2·9	5·2	4·2	4·4	5·3	5·9	4·48

[1] Exclusive of the Territories.

Stillbirths.—Table **13** shows the number of stillbirths in Canada and the provinces, together with the rates per 1,000 live births. The rate of stillbirths has been falling since 1926, though not equally in all provinces. The rate of illegitimate stillbirths per 1,000 illegitimate live births is considerably higher than the rate of legitimate stillbirths, and consequently higher than the over-all rate. The difference, however, has been getting smaller.

13.—Stillbirths, and Rates per 1,000 Live Births, by Provinces, 1941-45 with Five-Year Averages, 1926-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Item		Born to All Mothers										Born to Unmarried Mothers	
		P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]	No.	P.C. of Total
Totals—	Av. 1926-30	43	365	283	2,212	2,761	479	551	467	297	7,458	356	4·77
	Av. 1931-35	67	401	302	2,337	2,284	383	488	421	247	6,930	381	5·50
	Av. 1936-40	61	334	282	2,386	2,008	340	393	359	248	6,410	337	5·26
	Av. 1941-45	50	385	291	2,797	1,982	344	349	329	308	6,835	355	5·20
	1941	58	392	308	2,692	2,080	381	352	329	285	6,877	364	5·29
	1942	60	410	300	2,921	2,076	351	366	339	304	7,127	378	5·30
	1943	51	392	295	2,678	2,043	344	348	331	314	6,796	329	4·84
	1944	42	405	283	2,814	1,866	315	344	335	301	6,705	369	5·50
	1945	40	327	267	2,880	1,844	327	334	312	337	6,668	336	5·04
												Per 1,000 Illegitimate Live Births	
Rates per 1,000 Live Births—	Av. 1926-30	24·8	33·1	27·4	26·7	40·2	33·3	25·9	29·3	28·7	31·5	49·9	
	Av. 1931-35	34·2	34·9	28·9	29·6	35·1	28·0	24·0	25·4	24·7	30·3	45·7	
	Av. 1936-40	29·7	27·7	25·4	30·4	31·2	25·2	21·0	22·0	20·5	28·0	37·3	
	Av. 1941-45	23·0	25·5	22·4	28·5	25·6	21·8	18·9	17·4	17·4	24·7	30·8	
	1941	28·0	28·4	25·3	30·1	28·9	25·9	19·1	18·9	19·0	26·9	36·0	
	1942	27·9	27·0	23·9	30·6	26·7	22·5	20·0	18·4	18·1	26·2	34·1	
	1943	23·5	25·7	22·8	27·0	25·3	21·1	18·7	17·0	16·7	24·0	28·7	
	1944	18·4	26·0	21·0	27·5	23·9	19·7	19·0	17·3	15·8	23·6	30·5	
	1945	17·7	21·1	19·5	27·6	23·3	20·1	17·6	15·6	17·9	23·1	26·0	

[1] Exclusive of the Territories.

Multiple Births.—Approximately one confinement in 85 in Canada results in the birth of more than one child. In 1926-45, there have been 57,740 such confinements, of which 57,214 were twins and 519 were triplets. There have been six sets of quadruplets, including two in 1945. The Dionne quintuplets were born in 1934.

Table **14** shows that the proportion of stillbirths is higher among multiple than among single births. It is about twice as high for twins and between two and six times as high for triplets.

14.—Single and Multiple Births, Live and Stillborn, 1941-45, with Five-Year Averages, 1936-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Confinements and Births	Average 1936-40	Average 1941-45	1941	1942	1943	1944	1945
			NUMBERS				
Confinements—							
Single	229,778	277,398	256,357	273,331	284,003	284,563	288,734
Twin	2,667	3,096	2,888	3,018	3,150	3,140	3,283
Triplet	21	26	22	26	26	26	30
Quadruplet	[1]	[1]	Nil	Nil	Nil	1	2
Totals, Confinements	**232,466**	**280,520**	**259,267**	**276,375**	**287,179**	**287,730**	**292,049**
Births—							
Single—							
Live	223,668	270,857	249,809	266,475	277,529	278,144	282,330
Stillborn	6,110	6,540	6,548	6,856	6,474	6,419	6,404
Twin—							
Live	5,041	5,902	5,445	5,770	5,984	6,003	6,310
Stillborn	293	289	331	266	316	277	256
Triplet—							
Live	56	70	63	68	67	69	83
Stillborn	7	8	3	10	11	9	7
Quadruplet—							
Live	[1]	[1]	Nil	Nil	Nil	4	7
Stillborn	Nil	[1]	“	“	“	Nil	1
Totals, Births	**235,177**	**283,670**	**262,199**	**279,445**	**290,381**	**290,925**	**295,398**
Live	228,767	276,832	255,317	272,313	283,580	284,220	288,730
Stillborn	6,410	6,838	6,882	7,132	6,801	6,705	6,668
			PERCENTAGES				
Confinements—							
Single	98·8	98·9	98·9	98·9	98·9	98·9	98·9
Twin	1·1	1·1	1·1	1·1	1·1	1·1	1·1
Triplet	[2]	[2]	[2]	[2]	[2]	[2]	[2]
Quadruplet	[2]	[2]	—	—	—	[2]	[2]
Totals, Confinements	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Births—							
Single—							
Live	97·3	97·6	97·4	97·5	97·7	97·7	97·8
Stillborn	2·7	2·4	2·6	2·5	2·3	2·3	2·2
Twin—							
Live	94·5	95·3	94·3	95·6	95·0	95·6	96·1
Stillborn	5·5	4·7	5·7	4·4	5·0	4·4	3·9

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[1] Two quadruplet confinements occurred in 1937, one in 1944 and two in 1945. [2] Less than one-tenth of one per cent.

14.—Single and Multiple Births, Live and Stillborn, 1941-45, with Five-Year Averages, 1936-45—concluded

Confinements and Births	Average 1936-40	Average 1941-45	1941	1942	1943	1944	1945
	PERCENTAGES—concluded						
Births—concluded							
Triplet—							
Live	88·9	89·7	95·5	87·2	85·9	88·5	92·2
Stillborn	11·1	10·3	4·5	12·8	14·1	11·5	7·8
Quadruplet—							
Live	[1]	[1]	–	–	–	100·0	87·5
Stillborn	–	[1]	–	–	–	–	12·5
Totals, Births	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Live	97·3	97·6	97·4	97·4	97·7	97·7	97·7
Stillborn	2·7	2·4	2·6	2·6	2·3	2·3	2·3

[1] Less than one-tenth of one per cent.

Fertility Rates.—The sex and age distribution of the population is an important factor in determining birth, death and marriage rates. Since more than 95 p.c. of children are born to women between the ages of 15 and 50, differences in the proportion of women of these ages to the population as a whole will cause differences in the birth rates of different countries or regions, even though the fertility of women at each age may be the same. Measures of fertility which are independent of the sex and age distribution of the population have therefore been devised. The best known of these are age-specific fertility rates and reproduction rates.

Table **15** shows the fertility of women in the age groups 15 to 50 years in Canada and the provinces. The three-year averages 1930-32 and 1940-42 have been calculated using the census figures; for the single years the estimated population figures have been used.

The fertility rates and gross reproduction rates given in Table **15** make it possible to compare fertility in the provinces after the effect of differences in the sex and age distribution of the population has been eliminated. The figures of 'total fertility' show the average number of children that would be born to 1,000 women living through the child-bearing age (15 to 50), assuming that the fertility at each age remained constant. They are obtained by adding the fertility rates of the seven age groups and multiplying the sum by 5 (since each age group covers 5 child-bearing years).

The gross reproduction rates are obtained by reducing the figures of 'total fertility' in the same proportion of female to total births, and then dividing by 1,000. For example, the ratio of female to total births in Canada in 1940-42 was 1,000 to 2,059. The gross reproduction rate for 1940-42 is therefore obtained by multiplying total fertility of 2,857 by 1/2,059. The gross reproduction rate shows how far, assuming current fertility and no deaths, the present child-bearing generation of women is reproducing itself for the future. A gross reproduction rate greater than 1 shows that the number of child-bearing women is increasing, and a rate of less than 1 that it is declining.

For comparison with the Canadian figures, the gross reproduction rate of England and Wales was 0·850 in 1940; it was 1·092 in the United States in 1939-41 and 1·063 in Germany in 1936. These are countries of relatively low fertility. In Italy the gross reproduction rate was 1·425 in 1935-37, in Poland 1·705 in 1931-32, and in Bulgaria 1·673 in 1933-36. In Australia and New Zealand the rate was 1·075 and 1·074, respectively, in 1937 and 1·154 and 1·370, respectively, in 1941.*

Apart from the wartime 'boom' in births, fertility in Canada has been declining. Nevertheless, it is still comparatively high, and the Canadian population is a long way from the point of actual decline. Fertility in British Columbia and Ontario is, however, much nearer the level of an eventually declining population.

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*Figures from the Statistical Year Book of the League of Nations, 1942-44, pp. 56-57.

15.—Specific Fertility Rates of Women 15-49 Years of Age, by Provinces, 1943-45 with Three-Year Averages, 1930-32 and 1940-42

Province and Year	Fertility Rates per 1,000 Women by Age Groups							Total Fertility	Gross Reproduction Rate[1]
	15–19	20–24	25–29	30–34	35–39	40–44	45–49		
P.E. Island..........Av. 1930-32	28·1	138·1	182·6	174·0	127·0	52·3	4·7	3,534	1·667
Av. 1940-42	31·5	153·3	174·8	145·6	104·6	45·4	5·9	3,306	1·620
1943	36·0	141·3	210·7	165·0	112·5	49·5	5·5	3,602	1·762
1944	34·0	163·9	215·7	181·1	123·2	51·4	6·8	3,880	1·914
1945	40·0	150·3	206·7	170·3	126·1	56·7	5·0	3,775	1·824
Nova Scotia.........Av. 1930-32	44·3	154·0	172·3	144·4	106·6	48·2	5·7	3,377	1·631
Av. 1940-42	50·0	163·3	163·8	130·2	82·6	32·7	3·3	3,129	1·530
1943	51·9	168·3	165·3	131·6	86·6	32·1	3·1	3,195	1·558
1944	53·3	159·9	170·5	132·9	85·7	35·4	3·4	3,205	1·549
1945	54·6	154·0	156·2	134·4	92·8	32·4	3·1	3,138	1·504
New Brunswick.....Av. 1930-32	42·9	161·7	204·5	174·3	133·1	67·7	7·9	3,961	1·932
Av. 1940-42	47·1	169·7	188·0	157·3	116·9	49·6	6·4	3,675	1·788
1943	46·8	181·1	212·9	161·1	120·8	50·1	4·9	3,888	1·881
1944	46·1	183·9	211·2	174·2	128·9	57·3	5·8	4,037	1·954
1945	52·3	176·7	203·4	174·4	133·9	53·5	6·1	4,001	1·956
Quebec..............Av. 1930-32	20·4	136·5	210·2	193·2	154·1	72·6	9·6	3,984	1·933
Av. 1940-42	20·8	135·6	190·5	159·7	115·7	51·5	6·3	3,401	1·648
1943	24·0	145·6	205·1	165·1	119·6	48·8	5·8	3,570	1·731
1944	24·6	154·0	206·3	169·2	121·3	50·0	5·8	3,656	1·773
1945	23·9	155·3	205·0	168·5	121·6	50·8	6·4	3,657	1,778
Ontario..............Av. 1930-32	35·0	127·7	144·9	114·4	74·4	29·2	3·3	2,645	1·290
Av. 1940-42	37·1	133·5	137·9	98·9	57·0	19·5	1·9	2,429	1·180
1943	36·8	139·5	150·4	106·9	62·8	19·8	1·8	2,590	1·263
1944	34·5	127·8	138·8	108·2	63·8	19·9	1·6	2,473	1·192
1945	33·7	127·8	135·1	107·5	66·3	21·0	1·8	2,467	1·192
Manitoba............Av. 1930-32	25·3	121·4	155·8	128·7	87·4	37·4	4·9	2,805	1·374
Av. 1940-42	27·6	125·8	144·4	112·8	70·2	27·6	3·0	2,557	1·246
1943	27·7	139·4	159·3	125·2	75·7	30·1	3·6	2,805	1·358
1944	28·7	129·6	156·1	121·0	77·0	27·6	2·9	2,715	1·303
1945	29·1	132·3	151·5	120·2	78·3	29·3	3·3	2,720	1·310

For footnote, see end of table, p. 155.

15.—Specific Fertility Rates of Women 15-49 Years of Age, by Provinces, 1943-45 with Three-Year Averages, 1930-32 and 1940-42—concluded

Province and Year	Fertility Rates per 1,000 Women by Age Groups							Total Fertility	Gross Reproduction Rate[1]
	15–19	20–24	25–29	30–34	35–39	40–44	45–49		
Saskatchewan.......Av. 1930-32	30·1	157·5	191·7	151·7	112·1	50·3	6·6	3,500	1·699
Av. 1940-42	24·4	131·5	158·8	126·4	86·7	35·6	4·8	2,841	1·374
1943	23·8	138·9	183·2	137·3	92·8	34·5	4·6	3,076	1·473
1944	23·0	133·4	173·7	138·5	92·1	37·4	3·8	3,010	1·462
1945	25·7	136·7	181·0	138·8	95·6	37·3	4·4	3,098	1·495
Alberta..............Av. 1930-32	35·4	165·0	188·5	143·0	98·1	42·1	5·6	3,389	1·652
Av. 1940-42	32·9	152·9	164·4	116·6	76·3	31·3	3·9	2,892	1·411
1943	34·5	169·9	185·1	130·5	81·0	29·4	4·1	3,172	1·554
1944	32·6	155·8	176·9	129·9	82·2	33·6	4·3	3,076	1·492
1945	34·1	157·8	174·5	134·9	88·2	30·7	3·1	3,116	1·504
British Columbia....Av. 1930-32	24·0	111·0	127·7	94·7	56·9	21·4	2·7	2,192	1·070
Av. 1940-42	31·6	136·9	137·6	94·0	49·4	15·7	1·7	2,335	1·132
1943	36·4	137·9	149·0	100·1	54·5	17·6	1·7	2,486	1·219
1944	32·3	129·9	138·9	103·9	61·4	18·0	1·6	2,430	1·186
1945	31·8	124·9	132·9	100·8	63·6	18·2	2·7	2,375	1·151
Canada (Exclusive of the Territories)....**Av. 1930-32**	**29·6**	**136·6**	**174·4**	**144·9**	**103·2**	**44·9**	**5·6**	**3,195**	**1·554**
Av. 1940-42	**30·6**	**138·2**	**160·7**	**124·6**	**81·4**	**32·3**	**3·7**	**2,857**	**1·388**
1943	**32·1**	**146·4**	**175·4**	**131·8**	**86·5**	**31·8**	**3·5**	**3,037**	**1·476**
1944	**31·2**	**142·5**	**169·5**	**133·9**	**88·0**	**32·9**	**3·4**	**3,007**	**1·455**
1945	**31·4**	**142·4**	**166·3**	**133·4**	**90·3**	**33·3**	**3·7**	**3,004**	**1·455**

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[1] No correction has been made in these figures for under-registration of births. To this extent they are slightly lower than the figures in "Gross and Net Reproduction Rates, Canada and the Provinces, 1930-42" published by the Dominion Bureau of Statistics.

Age of Parents.—The numerical and percentage distribution of legitimate live births by the ages of the parents, is given in Table **16**, of illegitimate live births by the age of the mother, in Table **17**, and of stillbirths by the age of the mother in Table **18**. The average ages of the parents are also given.

It will be seen that the average age of parents is now slightly lower than it was in 1930-32. Besides the fertility rates at each age, two other factors help to determine the average age of parents having children. First, the average age of potential parents, that is, of the population between the ages of 15 and 50. The average age of men between 15 and 50 was 30·9 in 1931 and 30·7 in 1941; the average age of women was 30·4 in 1931 and again 30·4 in 1941. The changes are thus very small. Secondly, the proportion of first and second births in the total. Other things being equal, a high proportion of first and second births will result in a lower average age of parents. In 1930-32, first births were slightly less than one-quarter of all births, and second births less than one-fifth. First and second births thus were 43 p.c. of the total. In 1940-42, first births were over one-third of all births, and second births nearly one-quarter. First and second births together thus were 56 p.c. of the total. These changes are very great and account for the lower average age of parents.

A number of other facts are shown in Tables **16, 17** and **18.** In the first place, the average age of fathers of legitimate children is about 4 years greater than the average age of mothers. Secondly, the average age of mothers of illegitimate children is about 5 years less than the average age of mothers of legitimate children; in 1930-32 the difference was 6 years. The fact that over two-thirds of illegitimate children are born to mothers of less than 25 years accounts for this difference. Thirdly, the average age of mothers of stillborn children is higher than that of live born. Table **18** shows that the rate of stillbirths per 1,000 live births increases with age of the mother. It is twice as high among mothers of 40-44 years as it is among mothers of 20-24, and over three times as high among mothers of 45-49.

16.—Legitimate Live Births, by Age of Parents, 1944 and 1945, with Three-Year Averages, 1930-32 and 1940-42

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Age Group	Averages 1930-32		Averages 1940-42		1944		1945	
	FATHERS							
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years	960	0·4	1,228	0·5	1,830	0·7	2,020	0·7
20–24 "	25,811	11·1	29,655	12·0	33,162	12·2	34,301	12·4
25–29 "	57,254	24·7	69,053	28·0	70,668	26·0	69,491	25·2
30–34 "	55,661	24·1	64,180	26·0	72,194	26·5	72,314	26·2
35–39 "	43,698	18·9	43,224	17·5	49,933	18·4	51,866	18·8
40–44 "	28,364	12·3	23,132	9·4	27,240	10·0	27,748	10·1
45–49 "	13,362	5·8	10,645	4·3	11,053	4·1	11,897	4·3
50 years or over	6,158	2·7	5,734	2·3	5,894	2·2	6,003	2·2
Totals, Stated Ages	231,268	100·0	246,851	100·0	271,974	100·0	275,640	100·0
Ages not stated	315	–	198	–	167	–	153	–
Totals, All Ages	**231,583**	–	**247,049**	–	**272,141**	–	**275,793**	–
Average Age	33·7		32·8		32·9		32·9	
	MOTHERS							
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years	12,460	5·4	14,062	5·7	13,464	4·9	13,361	4·8
20–24 "	58,003	25·1	67,077	27·2	73,721	27·1	73,534	26·7
25–29 "	64,204	27·7	74,897	30·3	80,338	29·5	80,613	29·2
30–34 "	48,567	21·0	50,376	20·4	59,054	21·7	60,467	21·9
35–39 "	33,478	14·5	29,032	11·8	33,335	12·3	35,074	12·7
40–44 "	13,173	5·7	10,383	4·2	11,099	4·1	11,440	4·2
45–49 "	1,382	0·6	1,055	0·4	990	0·4	1,103	0·4
50 years or over	24	[1]	20	[1]	30	[1]	20	[1]
Totals, Stated Ages	231,291	100·0	246,902	100·0	272,031	100·0	275,612	100·0
Ages not stated	292	–	147	–	110	–	181	–
Totals, All Ages	**231,583**	–	**247,049**	–	**272,141**	–	**275,793**	–
Average Age	29·3		28·6		28·7		28·8	

[1] Less than one-tenth of one per cent.

17.—Illegitimate Live Births, by Age of the Mother, 1944 and 1945, with Three-Year Averages, 1930-32 and 1940-42

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Age Group	Averages 1930-32		Averages 1940-42		1944		1945	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years	2,648	37·3	2,866	30·7	3,436	30·4	3,573	29·2
20-24 "	2,727	38·4	3,683	39·5	4,461	39·5	4,896	40·0
25-29 "	958	13·5	1,594	17·1	1,925	17·0	2,105	17·2
30-34 "	416	5·9	694	7·4	871	7·7	968	7·9
35-39 "	250	3·5	355	3·8	458	4·1	526	4·3
40-44 "	86	1·2	125	1·3	137	1·2	158	1·3
45-49 "	13	0·2	12	0·1	13	0·1	17	0·1
50 years or over	Nil	–	1	[1]	1	[1]	Nil	–
Totals, Stated Ages	7,098	100·0	9,330	100·0	11,302	100·0	12,243	100·0
Ages not stated	1,197	–	936	–	777	–	694	–
Totals, All Ages	**8,295**	–	**10,266**	–	**12,079**	–	**12,937**	–
Average Age	23·2		23·8		23·9		24·0	

[1] Less than one-tenth of one per cent.

18.—Stillbirths by Age of the Mother, Together with Rates per 1,000 Live Births, 1944 and 1945, with Three-Year Averages, 1930-32 and 1940-42

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Age Group	Stillbirths								Rates per 1,000 Live Births			
	Averages 1930-32		Averages 1940-42		1944		1945		Averages 1930-32	Averages 1940-42	1944	1945
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years	472	6·4	378	5·5	306	4·6	332	5·0	31·3	22·3	18·1	19·6
20-24 "	1,574	21·2	1,482	21·7	1,496	22·5	1,431	21·6	25·9	20·9	19·1	18·2
25-29 "	1,704	23·0	1,804	26·4	1,631	24·5	1,609	24·3	26·1	23·6	19·8	19·5
30-34 "	1,517	20·5	1,465	21·5	1,502	22·6	1,502	22·7	31·0	28·7	25·1	24·4
35-39 "	1,327	17·9	1,104	16·2	1,127	17·0	1,132	17·1	39·3	37·6	33·4	31·8
40-44 "	712	9·6	520	7·6	504	7·6	547	8·3	53·7	49·5	44·9	47·2
45-49 "	99	1·3	72	1·1	77	1·2	74	1·1	70·7	67·5	76·8	66·1
50 years or over	3	[1]	2	[1]	3	[1]	1	[1]	[2]	[2]	[2]	[2]
Totals, Stated Ages	7,408	100·0	6,827	100·0	6,646	100·0	6,628	100·0	–	–	–	–
Ages not stated	129	–	56	–	59	–	40	–	–	–	–	–
Totals, All Ages	**7,537**	–	**6,883**	–	**6,705**	–	**6,668**	–	**31·4**	**26·7**	**23·6**	**23·1**
Average Age	30·4		30·0		30·2		30·3		–	–	–	–

[1] Less than one-tenth of one per cent. [2] The number of cases in this age group is too small to justify the calculation of a rate.

Birthplace of Parents.—Table **19** shows the numbers and percentages of children whose parents were born in Canada or in different countries abroad. The proportion of children born to British-born and to foreign-born parents is decreasing. This is the result of the smaller immigration of recent years.

19.—Numbers and Percentages of Live Births by Nativity of Parents, 1941-45, with Five-Year Averages, 1936-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Country of Birth of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
Canada.....................Av. 1936-40	174,282	193,423	162,129	76·2	84·6	70·9
Av. 1941-45	226,901	248,910	213,996	82·0	89·9	77·3
1941	205,234	226,346	193,256	80·4	88·7	75·7
1942	221,571	243,466	208,661	81·4	89·4	76·6
1943	232,342	255,091	219,268	81·9	90·0	77·3
1944	234,488	257,638	221,865	82·5	90·7	78·0
1945	240,868	262,008	226,931	83·4	90·7	78·6
British Empire (other than Canada)..................Av. 1936-40	18,052	13,790	4,209	7·9	6·0	1·8
Av. 1941-45	15,619	11,351	2,379	5·6	4·1	0·9
1941	16,208	11,461	2,711	6·3	4·5	1·1
1942	16,443	11,656	2,619	6·0	4·3	1·0
1943	16,429	11,471	2,525	5·8	4·0	0·9
1944	15,185	10,625	2,170	5·4	3·7	0·8
1945	13,828	11,544	1,871	4·8	4·0	0·6
United States...............Av. 1936-40	8,107	7,692	1,760	3·6	3·4	0·8
Av. 1941-45	7,300	6,436	1,182	2·6	2·3	0·4
1941	7,495	6,501	1,314	2·9	2·5	0·5
1942	7,400	6,757	1,276	2·7	2·5	0·5
1943	7,567	6,612	1,258	2·7	2·3	0·4
1944	7,211	6,273	1,073	2·5	2·2	0·4
1945	6,827	6,035	988	2·4	2·1	0·3
Other foreign countries......Av. 1936-40	19,163	12,922	8,880	8·3	5·6	3·9
Av. 1941-45	15,330	9,487	5,301	5·5	3·4	1·9
1941	16,122	10,335	6,394	6·4	4·0	2·5
1942	15,676	9,736	5,658	5·8	3·6	2·1
1943	15,627	9,732	5,335	5·5	3·4	2·0
1944	15,112	9,102	4,852	5·3	3·2	1·7
1945	14,112	8,529	4,265	4·9	3·0	1·5
Birthplace unspecified.......Av. 1936-40	9,163	940	63	4·0	0·4	[1]
Av. 1941-45	11,683	648	48	4·2	0·2	[1]
1941	10,258	674	78	4·0	0·3	[1]
1942	11,223	698	48	4·1	0·2	[1]
1943	11,615	674	42	4·1	0·3	[1]
1944	12,224	582	39	4·3	0·2	[1]
1945	13,095	614	34	4·5	0·2	[1]
Totals..................Av. 1936-40	**228,767**	**228,767**	**177,041**[2]	**100·0**	**100·0**	**77·4**[3]
Av. 1941-45	**276,832**	**276,832**	**222,906**[2]	**100·0**	**100·0**	**80·5**[3]
1941	**255,317**	**255,317**	**203,753**[2]	**100·0**	**100·0**	**79·8**[3]
1942	**272,313**	**272,313**	**218,262**[2]	**100·0**	**100·0**	**80·2**[3]
1943	**283,580**	**283,580**	**228,428**[2]	**100·0**	**100·0**	**80·6**[3]
1944	**284,220**	**284,220**	**229,999**[2]	**100·0**	**100·0**	**80·9**[3]
1945	**288,730**	**288,730**	**234,089**[2]	**100·0**	**100·0**	**81·1**[3]

[1] Less than one-tenth of one per cent. [2] This figure gives the number of children whose fathers and mothers were born in the same country. The difference between this figure and the total number of births represents the number of children whose parents were born in different countries. [3] This is the percentage of children whose fathers and mothers were born in the same country.

Origin of Parents.—Table 20 shows the numbers and percentages of children born to parents of the principal racial or ethnic groups in Canada. A person's origin is usually traced through the father. For example, if the father is English and the mother French, the person's origin is said to be English. Illegitimate children, however, are usually classified by the origin of their mother, since the origin of the father is seldom known.

Table **20** shows that about two-thirds of Canadian children are born to parents who are both of the same origin; one-third are born to parents of different origins. A certain amount of this inter-mixture has no doubt been going on for many years. It is clear that, more than biology or 'race', geography, language, religion and economic resources contribute primarily to the formation of different ethnic or cultural groups.

20.—Numbers and Percentages of Live Births to Parents of Specified Origins, 1941-45, with Five-Year Averages, 1936-45

Note.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Origin of Parents and Year		Numbers			Percentages		
		Father	Mother	Both Parents	Father	Mother	Both Parents
English	Av. 1936-40	45,985	48,724	28,889	20·1	21·3	12·6
	Av. 1941-45	55,231	58,617	32,491	20·0	21·2	11·7
	1941	51,470	54,073	30,393	20·2	21·2	11·9
	1942	55,706	58,913	33,103	20·5	21·6	12·2
	1943	58,130	61,136	34,527	20·5	21·6	12·2
	1944	56,138	59,551	32,908	19·8	21·0	11·6
	1945	54,711	59,412	31,522	18·9	20·6	10·9
Irish	Av. 1936-40	20,603	20,192	7,569	9·0	8·8	3·3
	Av. 1941-45	24,988	25,137	8,325	9·0	9·1	3·0
	1941	23,413	23,185	7,864	9·2	9·1	3·1
	1942	24,684	24,665	8,184	9·1	9·1	3·0
	1943	25,533	26,134	8,564	9·0	9·2	3·0
	1944	25,438	25,631	8,492	9·0	9·0	3·0
	1945	25,871	26,069	8,521	9·0	9·0	3·0
Scottish	Av. 1936-40	21,148	21,141	7,778	9·2	9·2	3·4
	Av. 1941-45	26,071	26,409	8,716	9·4	9·5	3·1
	1941	24,146	24,184	8,134	9·5	9·5	3·2
	1942	26,304	26,115	8,772	9·7	9·6	3·2
	1943	27,066	27,197	9,037	9·5	9·6	3·2
	1944	26,263	27,058	8,787	9·2	9·5	3·1
	1945	26,575	27,490	8,851	9·2	9·5	3·1
French	Av. 1936-40	87,238	91,251	81,888	38·1	39·9	35·8
	Av. 1941-45	107,883	113,085	100,635	39·0	40·8	36·4
	1941	98,946	103,772	92,362	38·8	40·6	36·2
	1942	104,683	110,000	97,612	38·4	40·4	35·8
	1943	108,482	113,865	101,096	38·3	40·2	35·6
	1944	112,087	117,576	104,672	39·4	41·4	36·8
	1945	115,218	120,212	107,431	39·9	41·6	37·2
Other origins	Av. 1936-40	44,309	46,114	28,951	19·4	20·2	12·7
	Av. 1941-45	50,693	52,624	28,854	18·3	19·0	10·4
	1941	46,811	49,151	27,993	18·2	19·2	10·9
	1942	49,420	51,599	28,523	18·1	18·9	10·5
	1943	52,314	54,129	29,621	18·4	19·0	10·5
	1944	51,764	53,402	28,861	18·2	18·8	10·2
	1945	53,156	54,839	29,272	18·4	19·0	10·1

20.—Numbers and Percentages of Live Births to Parents of Specified Origins, 1941-45, with Five-Year Averages, 1936-45—concluded

Origin of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
Origin unspecified............Av. 1936-40	9,484	1,345	268	4·2	0·6	0·1
Av. 1941-45	11,966	960	190	4·3	0·3	0·1
1941	10,531	952	196	4·1	0·4	0·1
1942	11,516	1,021	182	4·2	0·4	0·1
1943	12,055	1,119	278	4·3	0·4	0·1
1944	12,530	1,002	226	4·4	0·4	0·1
1945	13,199	708	70	4·6	0·2	[3]
Totals.......................Av. 1936-40	**228,767**	**228,767**	**155,343**[1]	**100·0**	**100·0**	**67·9**[2]
Av. 1941-45	**276,832**	**276,832**	**179,211**[1]	**100·0**	**100·0**	**64·7**[2]
1941	**255,317**	**255,317**	**166,942**[1]	**100·0**	**100·0**	**65·4**[2]
1942	**272,313**	**272,313**	**176,376**[1]	**100·0**	**100·0**	**64·8**[2]
1943	**283,580**	**283,580**	**183,123**[1]	**100·0**	**100·0**	**64·6**[2]
1944	**284,220**	**284,220**	**183,946**[1]	**100·0**	**100·0**	**64·7**[2]
1945	**288,730**	**288,730**	**185,667**[1]	**100·0**	**100·0**	**64·3**[2]

[1] This figure gives the number of children whose fathers and mothers are of the same origin. The difference between this figure and the total number of births represents the number of children whose parents are of different origins. [2] This is the percentage of children whose fathers and mothers are of the same origin. [3] Less than one-tenth of one per cent.

Section 3.—Deaths

Except for wars and their after-effects—military and civilian deaths in the First and Second World Wars must be counted in tens of millions—impressive declines in the death rate have been recorded during the past century in many countries of the world.

In England and Wales, the death rate was 22·4 per 1,000 in 1861-70. It fell to 15·4 in 1901-10 and 12·1 in 1921-30. It was 12·9 in 1941, 12·1 in 1943 and 11·4 in 1945. In Germany, the death rate was 26·8 per 1,000 in 1861-70. It fell to 18·7 in 1901-10 and to 12·6 in 1921-30. It was 11·6 in 1938 and 12·6 in 1939. Other European countries in which the death rate is now very low are the Netherlands, Denmark, Sweden and Switzerland. It is also very low in Canada, the United States, Australia and New Zealand.

Another way of measuring mortality is by life tables and the expectation of life that they show. In England and Wales the expectation of life at birth in 1933-35 was 59·7 years for males and 63·6 years for females. In Germany, in 1932-34, it was 59·9 years for males and 62·8 for females, and in the Netherlands, in 1931-35, 65·1 for males and 66·4 for females. The Netherlands had, before the War, the longest expectation of life of any European country.

Expectation of life in Canada in 1940-42 was 63·0 years for males and 66·3 years for females. In the United States in 1939-41, it was 61·6 years for males and 65·9 years for females. New Zealand has the longest expectation of life of any country; in 1934-38 it was 65·5 years for males and 68·5 years for females.

Subsection 1.—General Mortality

The number of deaths fell steadily from 113,515 in 1929 to 101,582 in 1934. The high number of deaths in 1937 (113,824) and in 1943 (118,635) was partly due to higher mortality from influenza, bronchitis and pneumonia.

Since 1931, the Canadian death rate has fluctuated between 10·3 and 9·4 per 1,000. It has been more or less stable in Ontario, has been falling in the Maritimes and Quebec and has been rising slightly in the Prairie Provinces and British Columbia. The exceptionally low death rates in the Prairie Provinces are partly due to their younger population. The slow rise in the death rate in the Prairie Provinces and British Columbia, is due to the increasing proportion of people in the older age groups. In all parts of Canada, however, the 1941 life tables show that public health and general living conditions have improved.

Throughout Table **21**, with one exception, the death rate is higher for males than for females.

21.—Deaths and Death Rates, by Sex and by Provinces, 1941-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Province and Year		Total Deaths	Rate per 1,000 Population	Males		Females	
				Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Prince Edward Island	1941	1,134	11·9	595	12·1	539	11·8
	1942	961	10·7	503	10·7	458	10·6
	1943	912	10·0	503	10·6	409	9·4
	1944	926	10·2	488	10·4	438	10·0
	1945	888	9·7	455	9·5	433	9·8
Nova Scotia	1941	6,914	12·0	3,739	12·6	3,175	11·3
	1942	6,385	10·8	3,503	11·6	2,882	10·0
	1943	6,477	10·7	3,581	11·5	2,896	9·8
	1944	6,229	10·2	3,362	10·7	2,867	9·6
	1945	5,625	9·1	3,090	9·8	2,535	8·3
New Brunswick	1941	5,184	11·3	2,804	12·0	2,380	10·7
	1942	5,154	11·1	2,741	11·5	2,413	10·6
	1943	4,917	10·6	2,677	11·3	2,240	9·9
	1944	5,131	11·1	2,772	11·7	2,359	10·5
	1945	4,865	10·4	2,635	11·0	2,230	9·8
Quebec	1941	34,338	10·3	18,344	11·0	15,994	9·6
	1942	33,799	10·0	18,233	10·7	15,566	9·2
	1943	35,069	10·1	18,915	10·9	16,154	9·4
	1944	34,813	9·9	18,569	10·6	16,244	9·3
	1945	33,348	9·4	18,002	10·1	15,346	8·6
Ontario	1941	39,226	10·4	21,549	11·2	17,677	9·5
	1942	39,119	10·1	21,349	10·9	17,770	9·3
	1943	41,063	10·5	22,159	11·2	18,904	9·8
	1944	39,781	10·0	21,629	10·8	18,152	9·3
	1945	39,499	9·9	21,563	10·7	17,936	9·0
Manitoba	1941	6,495	8·9	3,782	10·0	2,713	7·7
	1942	6,410	8·9	3,680	9·8	2,730	7·8
	1943	7,007	9·7	4,009	10·6	2,998	8·6
	1944	6,701	9·2	3,837	10·1	2,864	8·1
	1945	6,550	8·9	3,775	9·9	2,775	7·8
Saskatchewan	1941	6,458	7·2	3,821	8·0	2,637	6·3
	1942	6,190	7·3	3,665	8·0	2,525	6·4
	1943	6,654	7·9	3,993	8·8	2,661	6·8
	1944	6,454	7·6	3,830	8·4	2,624	6·7
	1945	6,429	7·6	3,867	8·5	2,562	6·5

21.—Deaths and Death Rates, by Sex and by Provinces, 1941-45—concluded

Province and Year		Total Deaths	Rate per 1,000 Population	Males		Females	
				Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Alberta	1941	6,385	8·0	3,866	9·1	2,519	6·8
	1942	6,091	7·8	3,724	8·9	2,367	6·6
	1943	6,524	8·2	3,999	9·4	2,525	6·9
	1944	6,320	7·7	3,823	8·7	2,497	6·6
	1945	6,454	7·8	3,907	8·9	2,547	6·6
British Columbia	1941	8,505	10·4	5,352	12·3	3,153	8·2
	1942	8,869	10·2	5,615	12·2	3,254	7·9
	1943	10,012	11·1	6,177	13·1	3,835	9·0
	1944	9,697	10·4	6,003	12·4	3,694	8·3
	1945	9,756	10·3	6,057	12·3	3,699	8·1
Canada (Exclusive of the Territories)	**1941**	**114,639**	**10·0**	**63,852**	**10·8**	**50,787**	**9·1**
	1942	**112,978**	**9·7**	**63,013**	**10·6**	**49,965**	**8·8**
	1943	**118,635**	**10·1**	**66,013**	**10·9**	**52,622**	**9·1**
	1944	**116,052**	**9·7**	**64,313**	**10·5**	**51,739**	**8·9**
	1945	**113,414**	**9·4**	**63,351**	**10·3**	**50,063**	**8·4**

Death Rates for Various Countries.—Table 22 shows the death rates in Canada and the provinces in comparison with those in other countries.

22.—Death Rates per 1,000 Population of Various Countries of the World Compared with Canada and the Provinces for Recent Years

(Sources: League of Nations Year Book and other official sources. In certain cases final figures are not available and provisional data are shown.)

Country or Province	Year	Death Rate	Country	Year	Death Rate
Union of South Africa	1944	9·3	Switzerland	1944	12·0
			Northern Ireland	1945	12·3
Canada	**1945**	**9·4**	Newfoundland and Labrador	1944	12·3
			Spain	1944	12·5
Saskatchewan	1945	7·6	Germany (territory of 1937)	1939	12·6
			Palestine (excluding Bedouins)	1945	12·7
Alberta	1945	7·8	Greece	1939	13·0
			Scotland	1945	13·2
Manitoba	1945	8·9	Bulgaria	1944	13·6
			Lithuania	1939	13·6
Nova Scotia	1945	9·1	Panama	1943	13·7
			Hungary	1943	13·8
Quebec	1945	9·4	Italy	1945	13·8
			Poland	1938	13·9
Prince Edward Island	1945	9·7	Eire	1945	14·4
			Belgium	1945	14·7
Ontario	1945	9·9	Jamaica	1944	15·1
			Austria	1939	15·3
British Columbia	1945	10·3	Japan	1941	15·4
			Costa Rica	1944	15·8
New Brunswick	1945	10·4	France (86 departments)	1945	16·6
			Finland	1944	17·3
Uruguay	1942	9·4	Latvia	1941	17·3
Australia	1945	9·5	Roumania	1943	18·1
Iceland	1943	9·9	Chile	1945	20·0
New Zealand	1945	10·0	Salvador	1943	20·4
Denmark	1944	10·2	Straits Settlements	1940	21·2
Norway	1944	10·4	Ceylon	1945	22·1
United States	1945	10·6	Estonia	1941	23·3
Sweden	1945	10·7	British India	1944	23·7
England and Wales	1945	11·4	Egypt	1944	34·8
Netherlands	1944	11·7			

Deaths in Urban Centres.—Deaths in urban centres of 10,000 population or over in 1941 are shown in Table 23. Taking the years in which deaths are classified by residence, the death rate in urban centres varies only slightly from the death rate of their respective provinces. However, due to the influx of people from the rural areas, the age distribution of the population in urban centres is often more favourable to a low death rate than that of the provinces as a whole.

23.—Deaths in Urban Centres of 10,000 Population or Over, 1941-45, with Five-Year Averages, 1936-45

NOTE.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Province and Urban Centre	Census Populations		Average 1936-40	Average 1941-45	1941	1942	1943	1944	1945
	1931	1941							
	No.	No.	No.	No.	No.	No.	No.	No.	No.
P. E. Island—									
Charlottetown	12,361	14,821	299	202	199	187	182	221	223
Nova Scotia—									
Dartmouth	9,100	10,847	65	120	117	123	99	129	132
Glace Bay	20,706	25,147	258	231	240	222	230	238	227
Halifax	59,275	70,488	895	786	852	811	836	775	655
Sydney	23,089	28,305	185	306	306	314	309	317	283
Truro	7,901	10,272	113	107	116	98	115	95	112
New Brunswick—									
Fredericton	8,830	10,062	158	121	113	121	109	112	150[1]
Moncton	20,689	22,763	272	223	220	220	252	212	209
Saint John	47,514	51,741	681	645	656	636	656	700	579
Quebec—									
Cap-de-la-Madeleine	8,748	11,961	71	97	81	94	98	95	117
Chicoutimi	11,877	16,040	268	184	187	197	178	165	192
Drummondville	6,609	10,555	88	91	82	72	96	105	99
Granby	10,587	14,197	111	132	133	135	117	129	148
Hull	29,433	32,947	355	355	335	328	366	362	385
Joliette	10,765	12,749	177	157	194	141	151	163	134
Jonquière	9,448	13,769	97	157	134	155	174	150	174
Lachine	18,630	20,051	205	230	240	215	216	242	237
Lévis	11,724	11,991	211	125	121	122	144	119	118
Montreal	818,577	903,007	9,715	9,885	9,771	9,623	10,491	10,059	9,480
Outremont	28,641	30,751	170	287	291	283	289	287	287
Quebec	130,594	150,757	2,057	1,899	1,887	1,711	1,952	1,956	1,990
St. Hyacinthe	13,448	17,798	318	256	240	240	251	283	264
St. Jean	11,256	13,646	179	136	132	114	152	151	130
St. Jérôme	8,967	11,329	88	118	124	102	105	122	139
Shawinigan Falls	15,345	20,325	160	176	190	176	179	161	175
Sherbrooke	28,993	35,965	477	381	354	326	377	445	401
Sorel	10,320	12,251	126	168	146	177	195	152	170
Thetford Mines	10,701	12,716	172	148	138	154	148	165	134
Three Rivers	35,450	42,007	606	414	418	414	428	408	403
Valleyfield	11,411	17,052	164	184	170	186	194	189	179
Verdun	60,745	67,349	521	532	452	522	542	591	555
Westmount	24,235	26,047	264	275	273	272	279	261	290
Ontario—									
Belleville	13,790	15,710	253	178	182	158	181	171	197
Brantford	30,107	31,948	405	419	400	438	416	438	402
Brockville	9,736	11,342	199	158	158	145	166	161	162
Chatham	14,569	17,369	330	219	203	209	226	214	242
Cornwall	11,126	14,117	247	204	200	197	223	197	201
Forest Hill	5,207	11,757	38	62	54	46	59	72	78
Fort William	26,277	30,585	226	244	250	244	239	253	234
Galt	14,006	15,346	183	172	171	178	178	159	175
Guelph	21,075	23,273	214	271	272	255	286	268	276
Hamilton	155,547	166,337	1,621	1,769	1,663	1,772	1,929	1,763	1,716
Kingston	23,439	30,126	515	377	367	388	376	823	374

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[1] Includes Devon.

23.—Deaths in Urban Centres of 10,000 Population or Over, 1941-45, with Five-Year Averages, 1936-45—concluded

Province and Urban Centre	Census Populations		Average 1936-40	Average 1941-45	1941	1942	1943	1944	1945
	1931	1941							
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Ontario—concluded									
Kitchener	30,793	35,657	386	331	307	330	358	329	333
London	71,148	78,264	1,123	930	852	903	1,002	948	946
Niagara Falls	19,046	20,589	216	217	205	248	195	222	217
North Bay	15,528	15,599	168	141	133	118	132	142	178
Oshawa	23,439	26,813	219	218	229	209	229	206	217
Ottawa	126,872	154,951	1,825	1,718	1,644	1,711	1,819	1,719	1,695
Owen Sound	12,839	14,002	197	185	176	179	206	181	182
Pembroke	9,368	11,159	178	127	121	130	115	126	142
Peterborough	22,327	25,350	367	317	303	286	334	325	335
Port Arthur	19,818	24,426	242	250	221	241	244	271	274
St. Catharines	24,753	30,275	323	314	287	308	349	306	319
St. Thomas	15,430	17,132	254	237	226	232	226	248	254
Sarnia	18,191	18,734	239	219	191	218	242	207	237
Sault Ste. Marie	23,082	25,794	247	252	244	258	260	262	236
Stratford	17,742	17,038	226	209	197	231	242	181	196
Sudbury	18,518	32,203	302	268	239	239	307	286	267
Timmins	14,200	28,790	196	181	205	176	166	174	182
Toronto	631,207	667,457	7,110	7,534	7,048	7,505	7,922	7,629	7,565
Welland	10,709	12,500	160	123	114	146	112	114	127
Windsor	98,179	105,311	903	953	872	925	1,077	936	954
Woodstock	11,395	12,461	217	174	183	159	185	172	169
Manitoba—									
Brandon	17,082	17,383	264	165	149	175	179	169	152
St. Boniface	16,305	18,157	536	187	151	202	191	195	195
Winnipeg	218,785	221,960	1,947	2,155	2,066	2,066	2,304	2,148	2,189
Saskatchewan—									
Moose Jaw	21,299	20,753	231	212	196	193	237	212	222
Prince Albert	9,905	12,508	195	114	99	109	108	134	121
Regina	53,209	58,245	564	439	387	413	468	463	462
Saskatoon	43,291	43,027	506	353	313	360	370	354	370
Alberta—									
Calgary	83,761	88,904	853	878	806	870	878	913	921
Edmonton	79,197	93,817	1,091	830	749	763	849	879	910
Lethbridge	13,489	14,612	201	144	133	147	151	132	159
Medicine Hat	10,300	10,571	148	123	118	90	97	143	168
British Columbia—									
New Westminster	17,524	21,967	344	233	210	223	272	254	207
Vancouver	246,593	275,353	2,842	3,377	3,105	3,196	3,590	3,434	3,560
Victoria	39,082	44,068	730	688	591	633	718	782	716

Sex and Age Distribution of Deaths.—Despite reductions in infant mortality, more deaths still occur in the first year of life than in any other year. The number of children who die under five years of age has been reduced from an average of 25,174 in 1930-32 to 17,949 in 1940-42 and 17,572 in 1945. The proportion which deaths of young children are of the total has fallen from 23·8 p.c. in 1930-32 to 15·9 p.c. in 1940-42 and 15·5 p.c. in 1945. Only a small part of this reduction is due to the lower proportion of children under five years in the total population which fell from 10·4 p.c. in 1931 to 9·1 p.c. in 1941 and, because of the large number of births in recent years, rose again to 10·3 p.c. in 1945.

Table 24 shows that the percentage distribution of deaths has changed greatly since 1930-32. The percentages of deaths at all ages up to 50 years have declined, and the percentages at ages over 50 have increased. The average age at death has gradually risen. The reduction in mortality rates in the early and middle years of life increases the number of people in the older age groups and raises the average age of the population as a whole. In 1931, 16·6 p.c. of the population was 50 years of age or over. The average age of all males was 29·0 years and of all females 28·1 years. In 1941, 19·7 p.c. of the population was 50 years of age or over, and the average age of all males had risen to 30·7 years and of all females to 30·2 years. Compared to most European countries, however, the Canadian population is still young.

24.—Deaths, by Sex and Age Groups, 1944 and 1945, with Three-Year Averages, 1930-32 and 1940-42

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Age Groups	Males				Females			
	Average 1930-32	Average 1940-42	1944	1945	Average 1930-32	Average 1940-42	1944	1945
	NUMBERS OF DEATHS							
Under 1 year	11,272	8,341	8,871	8,427	8,516	6,215	6,668	6,396
1 year	1,391	843	833	681	1,225	715	690	548
2 years	681	447	448	326	549	353	341	299
3 "	463	316	329	294	406	274	242	231
4 "	355	247	250	204	316	198	196	166
Totals, Under 5 Years of Age	14,162	10,194	10,731	9,932	11,012	7,755	8,137	7,640
5– 9 years	1,269	829	849	701	979	641	626	532
10–14 "	860	707	592	570	811	538	516	436
15–19 "	1,325	1,110	1,091	964	1,210	811	695	662
20–24 "	1,534	1,339	1,204	1,124	1,466	1,036	1,022	905
25–29 "	1,388	1,240	988	1,012	1,443	1,182	1,094	931
30–34 "	1,304	1,190	1,062	1,041	1,401	1,131	1,065	1,083
35–39 "	1,572	1,421	1,264	1,336	1,572	1,252	1,152	1,178
40–44 "	1,892	1,712	1,603	1,629	1,630	1,396	1,371	1,267
45–49 "	2,312	2,334	2,261	2,273	1,803	1,750	1,676	1,665
50–54 "	2,836	3,368	3,172	3,161	2,047	2,259	2,315	2,202
55–59 "	3,095	4,400	4,533	4,430	2,301	2,861	2,894	2,862
60–64 "	3,614	5,300	5,635	5,743	2,808	3,447	3,686	3,665
65–69 "	4,363	6,052	6,636	6,685	3,491	4,325	4,621	4,419
70–74 "	5,028	6,470	6,974	6,877	4,170	4,988	5,329	5,313
75–79 "	4,575	6,276	6,546	6,677	4,097	5,480	5,682	5,643
80–89 "	5,249	7,693	7,956	7,963	5,457	7,732	8,249	8,091
90 years or over	815	1,085	1,177	1,180	1,095	1,499	1,601	1,552
Totals, Stated Ages	57,193	62,720	64,274	63,298	48,793	50,083	51,731	50,046
Ages not stated	70	35	39	53	10	10	8	17
Totals, All Ages	**57,263**	**62,755**	**64,313**	**63,351**	**48,803**	**50,093**	**51,739**	**50,063**
	PERCENTAGES							
Under 1 year	19·7	13·3	13·8	13·3	17·5	12·4	12·9	12·8
1-4 years	5·1	3·0	2·9	2·4	5·1	3·1	2·8	2·5
Totals, Under 5 Years of Age	24·8	16·3	16·7	15·7	22·6	15·5	15·7	15·3
5– 9 years	2·2	1·3	1·3	1·1	2·0	1·3	1·2	1·1
10–19 "	3·8	2·9	2·6	2·4	4·1	2·7	2·3	2·2
20–29 "	5·1	4·1	3·4	3·4	6·0	4·4	4·1	3·7
30–39 "	5·0	4·2	3·6	3·8	6·1	4·8	4·3	4·5
40–49 "	7·4	6·5	6·0	6·2	7·0	6·3	5·9	5·9
50–59 "	10·4	12·4	12·0	12·0	8·9	10·2	10·1	10·1
60–69 "	13·9	18·1	19·1	19·6	12·9	15·5	16·1	16·2
70–79 "	16·8	20·3	21·0	21·4	16·9	20·9	21·3	21·9
80–89 "	9·2	12·3	12·4	12·6	11·2	15·4	15·9	16·2
90 years or over	1·4	1·7	1·8	1·9	2·2	3·0	3·1	3·1
Totals, Stated Ages	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Average Age at Death—All Ages	43·8	52·0	52·6	53·5	45·4	53·7	54·3	54·9
Over 1 Year	54·5	60·0	61·0	61·7	55·0	61·3	62·3	62·9

Causes of Death.—About nine-tenths of deaths in Canada are due to the 28 causes specified in Table **25**. About three-quarters are due to the **10** leading causes: diseases of the heart, cancer, intracranial lesions, violent deaths, nephritis, diseases of early infancy, pneumonia, tuberculosis, influenza and diseases of the arteries.

The classification of the causes of death is according to the revision of the International List of 1938, which was first used in Canada in 1941. Each revision of the International List makes continuity of classification difficult. This applies especially to diseases of the heart, intracranial lesions (cerebral hæmorrhage) and diseases of the arteries.

The rise in the average age at death has been noted above. Causes of death that affect mainly children and young adults have declined. Diphtheria, for example, has very nearly been wiped out. Tuberculosis has also been greatly reduced. On the other hand, the ageing of the population increases the proportion of deaths from the causes that affect mainly older people. Thus, cancer, nephritis and diseases of the heart now account for a substantially larger proportion of all deaths, than they used to.

25.—Deaths and Death Rates per 100,000 Population, by Principal Causes, 1941-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

International List No.[1]	Cause of Death	1941	1942	1943	1944	1945
		NUMBERS OF DEATHS				
1, 2	Typhoid fever, including paratyphoid	165	108	116	131	101
8	Scarlet fever	117	129	100	115	79
9	Whooping cough	437	560	416	337	470
10	Diphtheria	240	256	287	309	271
13	Tuberculosis, respiratory system	5,002	4,947	5,080	4,705	4,565
14–22	Tuberculosis, other organs	1,070	1,033	1,088	1,019	981
33	Influenza	2,411	1,227	2,413	1,864	1,087
35	Measles	325	131	190	239	97
45–55	Cancer and other malignant tumors	13,417	13,654	14,135	14,271	14,439
61	Diabetes mellitus	2,140	2,242	2,481	2,362	2,417
73	Anæmias	408	354	392	355	355
83	Intracranial lesions of vascular origin	9,034	8,728	9,245	9,089	9,421
86	Convulsions (under 5 years of age)	199	195	193	155	134
90–95	Diseases of the heart	26,602	27,529	29,282	29,148	29,705
96, 97, 99, 102	Diseases of the arteries	2,266	2,270	2,506	2,349	2,210
106	Bronchitis	394	383	528	431	394
107–109	Pneumonia	5,955	5,778	6,341	5,940	5,549
119, 120	Diarrhœa and enteritis	2,319	2,400	1,872	2,695	2,019
121	Appendicitis	1,051	824	775	809	677
122	Hernia, intestinal obstruction	908	912	948	911	863
130–132	Nephritis	7,399	7,233	7,473	7,124	6,926
137	Diseases of the prostate	892	855	953	951	847
140–150	Puerperal causes	901	818	798	776	660
157	Congenital malformations	1,901	2,096	2,154	2,004	2,134
158–161	Diseases peculiar to first year of life	6,252	6,029	6,648	6,655	6,394
162	Senility	1,593	1,650	1,774	1,690	1,624
163, 164	Suicides	896	839	758	731	764
166–198	Violent deaths (suicides excepted)	7,546	7,332	7,516	6,957	7,047
	Other specified causes	11,761	11,493	11,289	11,121	10,305
	Totals, Specified Causes	113,601	112,005	117,751	115,243	112,535
199, 200	Unspecified or ill-defined causes	1,038	973	884	809	879
	Totals, All Causes	**114,639**	**112,978**	**118,635**	**116,052**	**113,414**

For footnote, see end of table, p. 167.

25.—Deaths and Death Rates per 100,000 Population, by Principal Causes, 1941-45— concluded

International List No.[1]	Cause of Death	1941	1942	1943	1944	1945
		RATES PER 100,000 POPULATION				
1, 2	Typhoid fever, including paratyphoid	1·4	0·9	1·0	1·1	0·8
8	Scarlet fever	1·0	1·1	0·8	1·0	0·7
9	Whooping cough	3·8	4·8	3·5	2·8	3·9
10	Diphtheria	2·1	2·2	2·4	2·6	2·2
13	Tuberculosis, respiratory system	43·5	42·5	43·1	39·3	37·7
14-22	Tuberculosis, other organs	9·3	8·9	9·2	8·5	8·1
33	Influenza	21·0	10·5	20·5	15·6	9·0
35	Measles	2·8	1·1	1·6	2·0	0·8
45-55	Cancer and other malignant tumors	116·8	117·3	119·8	119·3	119·3
61	Diabetes mellitus	18·6	19·3	21·0	19·8	20·0
73	Anæmias	3·6	3·0	3·3	3·0	2·9
83	Intracranial lesions of vascular origin	78·7	75·0	78·4	76·0	77·8
86	Convulsions (under 5 years of age)	1·7	1·7	1·6	1·3	1·1
90-95	Diseases of the heart	231·5	236·6	248·3	243·8	245·5
96, 97, 99, 102	Diseases of the arteries	19·7	19·5	21·2	19·6	18·3
106	Bronchitis	3·4	3·3	4·5	3·6	3·3
107-109	Pneumonia	51·8	49·7	53·8	49·7	45·9
119, 120	Diarrhœa and enteritis	20·2	20·6	15·9	22·5	16·7
121	Appendicitis	9·1	7·1	6·6	6·8	5·6
122	Hernia, intestinal obstruction	7·9	7·8	8·0	7·6	7·1
130-132	Nephritis	64·4	62·2	63·4	59·6	57·2
137	Diseases of the prostate	7·8	7·3	8·1	8·0	7·0
140-150	Puerperal causes	7·8	7·0	6·8	6·5	5·5
157	Congenital malformations	16·5	18·0	18·3	16·8	17·6
158-161	Diseases peculiar to first year of life	54·4	51·8	56·4	55·7	52·8
162	Senility	13·9	14·2	15·0	14·1	13·4
163, 164	Suicides	7·8	7·2	6·4	6·1	6·3
166-198	Violent deaths (suicides excepted)	65·7	63·0	63·7	58·2	58·2
	Other specified causes	102·4	98·8	95·7	93·0	85·2
	Totals, Specified Causes	988·7	962·5	998·3	963·7	929·9
199, 200	Unspecified or ill-defined causes	9·0	8·4	7·5	6·8	7·3
	Totals, All Causes	**997·8**	**970·9**	**1,005·8**	**970·5**	**937·2**

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[1] The numbers given in this column refer to the International List of Causes of Death, as revised in 1938 by the International Commission on the Classification of Diseases and Causes of Death. This classification, in its detailed, intermediate or abridged form, is accepted by almost all civilized countries.

Subsection 2.—Infant Mortality

The energy devoted in recent years to reducing infant mortality has brought about large reductions in many countries. In Canada, the Dominion, provincial and municipal health authorities, together with private welfare agencies, have all taken part in the effort, with the result that the figures from 1926 to 1945, show a striking improvement. To illustrate, of the children born in 1941-45, approximately 54,000 lived to their first birthday who would have died at the rate prevailing in 1926-30.

Infant mortality of males is 25 to 30 p.c. higher than that of females. It was pointed out earlier that there were between 1,057 and 1,067 males born to every 1,000 females. Because male infant mortality is higher, the excess of males is much less at the end of the first year. For example, in 1940-42, 397,038 male children were born, compared with 374,908 female children, an excess of 22,130 or 5·9 p.c.; 25,024 male children died during their first year compared with 18,646 female children, that is 6,378 more. The excess of males at one year of age is thus 15,752, or 4·4 p.c.

By the age of 52, according to the life table, the number of males and females will have become equal.

Infant mortality figures and rates per 1,000 live births by sex are given for Canada and the provinces in Table **26**. The rates vary considerably between the provinces. One of the principal causes of these variations appears to be the different proportions of births which take place in hospitals under proper medical care. Examples of these differences have been given earlier on p. 148. Along with this increased hospitalization has come better and more wide-spread pre-natal and post-natal care. Other factors, particularly the supervision of water supplies, improved sanitation and the pasteurization of milk have also been important. Further extension of public-health services to provide for all the population will, no doubt, further reduce infant mortality, particularly in the areas where it is still high.

26.—Infant Mortality and Rates per 1,000 Live Births, by Sex and by Provinces, 1941-45

NOTE.—Figures for 1944 and 1945 are by place of residence; for previous years by place of occurrence.

Province and Year	Total Infant Deaths	Rate per 1,000 Live Births	Males		Females	
			Number of Infant Deaths	Rate per 1,000 Live Male Births	Number of Infant Deaths	Rate per 1,000 Live Female Births
Prince Edward Island............1941	163	80	102	95	61	63
1942	106	50	52	48	54	51
1943	98	45	56	50	42	40
1944	102	45	58	50	44	39
1945	102	45	54	46	48	44
Nova Scotia......................1941	908	65	545	77	363	53
1942	884	58	485	62	399	54
1943	898	58	507	64	391	52
1944	838	54	480	60	358	47
1945	823	53	479	59	344	46
New Brunswick..................1941	936	76	515	83	421	69
1942	978	77	564	86	414	68
1943	886	68	490	73	396	63
1944	1,035	77	593	85	442	68
1945	966	71	527	75	439	66
Quebec...........................1941	6,770	76	3,916	85	2,854	66
1942	6,657	70	3,854	78	2,803	61
1943	6,642	67	3,827	75	2,815	59
1944	6,918	68	3,936	75	2,982	60
1945	6,464	62	3,659	68	2,805	55
Ontario...........................1941	3,294	46	1,910	51	1,384	40
1942	3,139	40	1,790	44	1,349	36
1943	3,390	42	1,935	47	1,455	37
1944	3,346	43	1,933	48	1,413	38
1945	3,209	41	1,813	44	1,396	37
Manitoba.........................1941	788	53	447	59	341	47
1942	807	51	441	55	366	48
1943	909	55	492	58	417	52
1944	786	49	425	51	361	47
1945	781	48	445	53	336	43
Saskatchewan....................1941	946	51	531	56	415	46
1942	788	43	455	48	333	38
1943	873	47	499	52	374	42
1944	858	47	484	52	374	42
1945	824	44	489	50	335	37
Alberta...........................1941	879	51	506	57	373	44
1942	696	38	402	43	294	33
1943	810	42	468	48	342	36
1944	889	46	517	52	372	40
1945	862	43	511	50	351	36

26.—Infant Mortality and Rates per 1,000 Live Births, by Sex and by Provinces, 1941-45—concluded

Province and Year		Total Infant Deaths	Rate per 1,000 Live Births	Males		Females	
				Number of Infant Deaths	Rate per 1,000 Live Male Births	Number of Infant Deaths	Rate per 1,000 Live Female Births
British Columbia	1941	552	37	316	41	236	32
	1942	596	35	349	40	247	30
	1943	711	38	394	41	317	34
	1944	767	40	445	46	322	35
	1945	792	42	450	46	342	37
Canada (Exclusive of the Territories)	**1941**	**15,236**	**60**	**8,788**	**67**	**6,448**	**52**
	1942	**14,651**	**54**	**8,392**	**60**	**6,259**	**48**
	1943	**15,217**	**54**	**8,668**	**59**	**6,549**	**48**
	1944	**15,539**	**55**	**8,871**	**60**	**6,668**	**48**
	1945	**14,823**	**51**	**8,427**	**57**	**6,396**	**46**

Infant Mortality in Various Countries.—New Zealand has had for many years the lowest rate of infant mortality. In 1945 the rate was 28 per 1,000 live births, compared with 68 in 1905, 51 in 1920 and 34 in 1930. Sweden, Iceland and Australia also have very low rates. In England and Wales the rate has been reduced from 128 per 1,000 in 1905 to 60 in 1930 and 47 in 1945. In the United States the rate has been reduced from 162 in 1900 to 47 in 1940 and 38 in 1945.

27.—Infant Mortality per 1,000 Live Births in Various Countries of the World Compared with Canada and the Provinces for Recent Years

(Sources: League of Nations Year Book and other official sources. In certain cases final figures are not available and provisional data are shown.)

Country or Province	Year	Infant Mortality Rate	Country	Year	Infant Mortality Rate
New Zealand	1945	28	Scotland	1945	56
Australia	1945	29	Germany (territory of 1937)	1939	60
Sweden	1945	30	Northern Ireland	1945	68
Iceland	1943	36	Austria	1939	69
United States	1945	38	Eire	1945	69
Netherlands	1943	41	Finland	1944	69
Switzerland	1944	42	Latvia	1939	70
Norway	1941	43	Estonia	1938	77
Union of South Africa (Whites)	1944	43	Palestine (excluding Bedouins)	1945	80
England and Wales	1945	47	Panama	1942	86
Denmark	1944	48	Spain	1944	93
			Uruguay	1942	93
Canada	**1945**	**51**	Jamaica	1944	98
			Greece	1938	99
Ontario	1945	41	Italy	1945	99
			Newfoundland and Labrador	1944	101
British Columbia	1945	42	France (86 departments)	1945	108
			Salvador	1943	110
Alberta	1945	43	Japan	1938	114
			Bulgaria	1944	121
Saskatchewan	1945	44	Lithuania	1939	122
			Costa Rica	1944	125
Prince Edward Island	1945	45	Hungary	1943	129
			Ceylon	1945	140
Manitoba	1945	48	Poland	1938	140
			Straits Settlements	1940	144
Nova Scotia	1945	53	British India	1942	163
			Roumania	1943	184
Quebec	1945	62	Chile	1945	185
			Egypt	1944	204
New Brunswick	1945	71			

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[1] Within the boundaries of the Treaty of Trianon.

Infant Mortality in Urban Centres.—Infant mortality rates in individual cities and towns usually vary widely from year to year. Many cities and towns have, however, maintained consistently low rates. Vancouver has a splendid record; Calgary, Toronto and Winnipeg have exceptionally low rates and Montreal has shown steady improvement. The greatest fall has been in Three Rivers, where infant mortality has been cut more than half in 1941-45 compared with earlier years.

28.—Deaths and Death Rates of Children under One Year of Age (Exclusive of Stillbirths), in Urban Centres of 10,000 Population or Over, 1941-45

Note.—Figures are by residence.

Province and Urban Centre	Infant Deaths					Rates per 1,000 Live Births				
	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
Prince Edward Island—										
Charlottetown	24	14	9	26	28	73	35	23	64	71
Nova Scotia—										
Dartmouth	15	27	17	15	31	49	65	38	35	72
Glace Bay	57	56	59	60	34	77	76	81	84	47
Halifax	87	93	96	93	98	48	44	46	44	48
Sydney	48	38	56	51	52	58	40	57	54	55
Truro	21	10	15	16	15	72	33	52	53	55
New Brunswick—										
Fredericton	9	14	9	11	15	51	59	46	46	52[1]
Moncton	35	31	26	25	22	67	48	39	35	33
Saint John	78	56	82	80	77	62	41	57	55	58
Quebec—										
Cap-de-la-Madeleine	18	20	16	15	20	51	52	44	41	52
Chicoutimi	55	67	50	57	58	81	79	54	52	64
Drummondville	18	15	27	27	23	54	42	72	67	60
Granby	19	17	13	14	22	41	38	29	31	43
Hull	70	82	92	95	82	66	73	73	79	67
Joliette	34	19	37	28	22	97	44	84	68	54
Jonquière	45	69	59	58	55	70	81	60	60	64
Lachine	33	28	27	21	18	76	54	52	42	34
Lévis	20	21	26	23	24	74	65	73	66	71
Montreal	1,292	1,142	1,387	1,295	1,150	69	55	63	58	50
Outremont	11	6	5	14	10	39	18	13	40	32
Quebec	458	428	528	548	619	115	103	120	119	141
St. Hyacinthe	34	26	30	25	25	89	58	78	54	60
St. Jean	10	11	17	33	16	27	30	39	74	35
St. Jérôme	24	22	18	30	24	72	49	40	66	53
Shawinigan Falls	54	54	44	43	53	78	65	50	48	55
Sherbrooke	57	44	49	75	80	59	39	41	64	64
Sorel	42	36	49	31	36	117	85	99	54	65
Thetford Mines	32	24	23	30	24	73	58	57	71	59
Three Rivers	91	81	82	100	67	71	64	67	83	56
Valleyfield	43	44	51	39	33	75	62	71	55	52
Verdun	40	60	65	71	77	31	41	39	45	48
Westmount	6	4	9	6	11	34	20	31	20	40
Ontario—										
Belleville	23	19	20	13	16	67	48	48	35	41
Brantford	36	24	28	22	36	53	31	34	29	45
Brockville	17	15	16	16	10	81	54	59	59	36
Chatham	18	9	22	19	16	43	21	49	52	39
Cornwall	40	23	38	29	28	88	48	68	55	54
Forest Hill	1	Nil	1	3	2	6	Nil	6	16	11
Fort William	34	29	18	15	25	60	45	25	23	37
Galt	10	13	6	11	10	35	41	19	32	33
Guelph	22	19	18	22	22	51	39	36	47	48
Hamilton	96	111	135	134	100	33	32	36	36	29
Kingston	38	36	37	40	29	54	43	38	46	34
Kitchener	22	29	19	21	17	32	39	26	32	23
London	44	39	59	72	74	29	24	33	41	42
Niagara Falls	21	18	11	16	9	44	32	19	30	17
North Bay	21	17	19	27	16	63	49	53	70	42
Oshawa	20	25	15	18	19	38	41	24	31	32
Ottawa	167	145	157	147	134	54	44	47	42	37

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[1] Includes Devon.

28.—Deaths and Death Rates of Children under One Year of Age (Exclusive of Stillbirths), in Urban Centres of 10,000 Population or Over, 1941-45—concluded

Province and Urban Centre	Infant Deaths					Rates per 1,000 Live Births				
	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
Ontario—concluded										
Owen Sound	17	15	20	26	18	54	47	60	80	64
Pembroke	22	19	11	23	30	77	62	37	76	99
Peterborough	22	35	24	31	32	39	48	36	45	42
Port Arthur	28	17	16	19	17	53	29	28	35	30
St. Catharines	16	21	21	23	25	26	29	27	29	33
St. Thomas	20	18	18	13	15	58	45	43	34	41
Sarnia	14	14	22	18	21	37	35	45	39	41
Sault Ste. Marie	27	36	28	31	28	41	48	37	43	38
Stratford	11	11	14	15	9	39	39	46	48	34
Sudbury	61	54	92	98	64	46	40	65	76	52
Timmins	42	28	41	36	38	43	29	53	53	51
Toronto	343	401	482	411	373	36	34	41	36	33
Welland	14	14	19	16	21	52	36	44	43	65
Windsor	71	109	118	101	89	32	44	46	42	40
Woodstock	14	5	11	10	10	62	16	36	42	38
Manitoba—										
Brandon	13	18	13	16	20	48	54	30	41	56
St. Boniface	12	16	28	20	18	32	41	64	42	40
Winnipeg	148	172	190	149	138	41	43	43	36	32
Saskatchewan—										
Moose Jaw	18	15	32	18	18	47	32	60	38	40
Prince Albert	12	18	6	23	37	40	53	18	63	101
Regina	32	39	57	63	51	29	34	46	55	42
Saskatoon	18	28	31	35	32	24	35	36	39	35
Alberta—										
Calgary	66	65	67	75	90	37	33	31	34	40
Edmonton	61	80	70	101	95	32	38	28	39	34
Lethbridge	15	14	17	12	19	57	37	43	29	45
Medicine Hat	9	10	7	21	17	40	40	21	63	57
British Columbia—										
New Westminster	25	13	23	17	18	52	30	43	34	36
Vancouver	119	153	174	168	171	27	29	30	29	30
Victoria	11	34	38	36	26	14	33	27	26	23

Infant Mortality by Causes of Death.—Of the infant deaths that occur in Canada, about 90 p.c. are due to the nine causes and groups of causes specified in Table 29. One cause alone, premature birth, accounts for over 20 p.c. The rates from nearly all causes are higher for male than for female children; the only exception shown in the table is for communicable diseases in 1944.

29.—Infant Mortality and Rates per 100,000 Live Births, by Principal Causes, 1941-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

International List No.	Cause of Death and Year		Numbers			Rates per 100,000 Live Births			Percentage Distribution by Cause of Death
			Males	Females	Total	Males	Females	Total	
	Communicable diseases [1]	1941	857	697	1,554	653	561	609	10·2
		1942	611	541	1,152	435	411	423	7·9
		1943	672	628	1,300	461	456	458	8·5
		1944	582	581	1,163	397	422	409	7·5
		1945	548	492	1,040	368	352	360	7·0
86	Convulsions	1941	80	62	142	61	50	56	0·9
		1942	87	62	149	62	47	55	1·0
		1943	94	54	148	65	39	52	1·0
		1944	62	39	101	42	28	36	0·6
		1945	55	47	102	37	34	35	0·7

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[1] Includes measles, scarlet fever, whooping cough, diphtheria, influenza, erysipelas, acute poliomyelitis and polioencephalitis, cerebrospinal meningitis, tuberculosis and syphilis.

29.—Infant Mortality and Rates per 100,000 Live Births, by Principal Causes, 1941-45— concluded

International List No.	Cause of Death and Year	Numbers			Rates per 100,000 Live Births			Percentage Distribution by Cause of Death
		Males	Females	Total	Males	Females	Total	
106–109	Bronchitis and pneumonia 1941	1,274	966	2,240	971	778	877	14·7
	1942	1,220	895	2,115	868	679	777	14·4
	1943	1,240	908	2,148	851	659	757	14·1
	1944	1,158	933	2,091	790	678	736	13·5
	1945	1,223	977	2,200	821	699	762	14·8
119	Diarrhœa and enteritis 1941	998	695	1,693	761	560	663	11·1
	1942	1,006	745	1,751	716	566	643	12·0
	1943	827	596	1,423	568	432	502	9·4
	1944	1,190	967	2,157	811	703	759	13·9
	1945	928	697	1,625	623	499	563	11·0
157	Congenital malformations 1941	902	779	1,681	688	628	658	11·0
	1942	944	852	1,796	671	647	660	12·3
	1943	978	907	1,885	671	658	665	12·4
	1944	957	780	1,737	653	567	611	11·2
	1945	1,069	819	1,888	718	586	654	12·7
158	Congenital debility 1941	629	417	1,046	480	336	410	6·9
	1942	570	394	964	405	299	354	6·6
	1943	565	362	927	388	263	327	6·1
	1944	525	405	930	358	294	327	6·0
	1945	524	351	875	352	251	303	5·9
159	Premature birth 1941	1,758	1,251	3,009	1,340	1,008	1,179	19·7
	1942	1,655	1,189	2,844	1,177	903	1,044	19·4
	1943	1,958	1,512	3,470	1,344	1,097	1,224	22·8
	1944	2,072	1,435	3,507	1,413	1,043	1,234	22·6
	1945	1,892	1,434	3,326	1,271	1,026	1,152	22·4
160	Injury at birth 1941	781	467	1,248	595	376	489	8·2
	1942	784	455	1,239	558	345	455	8·5
	1943	773	490	1,263	530	355	445	8·3
	1944	772	432	1,204	526	314	424	7·7
	1945	714	457	1,171	479	327	406	7·9
161	Other diseases peculiar to the first year of life 1941	572	377	949	436	304	372	6·2
	1942	567	415	982	403	315	361	6·7
	1943	586	402	988	402	292	348	6·5
	1944	596	418	1,014	406	304	357	6·5
	1945	595	427	1,022	400	305	354	6·9
	Other specified causes 1941	731	563	1,294	557	454	507	8·5
	1942	727	531	1,258	517	403	462	8·6
	1943	757	524	1,281	519	380	452	8·4
	1944	734	527	1,261	501	383	444	8·1
	1945	657	527	1,184	441	377	410	8·0
199, 200	Unspecified or ill-defined causes 1941	206	174	380	157	140	149	2·5
	1942	221	180	401	157	137	147	2·7
	1943	218	166	384	150	120	135	2·5
	1944	223	151	374	152	110	132	2·4
	1945	222	168	390	149	120	135	2·6
	Totals, All Causes 1941	**8,788**	**6,448**	**15,236**	**6,699**	**5,194**	**5,967**	**100·0**
	1942	**8,392**	**6,259**	**14,651**	**5,969**	**4,751**	**5,380**	**100·0**
	1943	**8,668**	**6,549**	**15,217**	**5,948**	**4,751**	**5,366**	**100·0**
	1944	**8,871**	**6,668**	**15,539**	**6,049**	**4,847**	**5,467**	**100·0**
	1945	**8,427**	**6,396**	**14,823**	**5,659**	**4,575**	**5,134**	**100·0**

Subsection 3.—Maternal Mortality

As in the case of infant mortality, the number of mothers who die in pregnancy and childbirth has been greatly reduced. Maternal mortality in Canada and the provinces is shown in Table **30**. Although the number of births has been much greater in recent years, the number of maternal deaths has been well below a thousand a year. The rate of maternal mortality is now less than 3 per 1,000 live births. The last two columns of the table show that mortality among unmarried mothers is much higher than among married mothers.

30.—Maternal Deaths and Rates per 1,000 Live Births, by Provinces, 1941-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Item	Maternal Deaths										Maternal Deaths of Unmarried Mothers	
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada[1]	No.	P.C. of Total
Totals—												
1941	6	49	43	386	219	46	58	54	40	901	61	6·77
1942	10	41	57	314	206	40	62	43	45	818	53	6·48
1943	9	57	41	315	189	40	48	52	47	798	63	7·89
1944	12	33	43	318	198	49	42	31	50	776	48	6·19
1945	6	24	25	256	171	31	49	48	50	660	38	5·76
Rates per 1,000 Live Births—											Per 1,000 Illegitimate Live Births	
1941	2·9	3·5	3·5	4·3	3·0	3·1	3·1	3·1	2·7	3·5	6·0	
1942	4·7	2·7	4·5	3·3	2·6	2·6	3·4	2·3	2·7	3·0	4·8	
1943	4·1	3·7	3·1	3·2	2·3	2·4	2·6	2·7	2·5	2·8	5·5	
1944	5·2	2·1	3·2	3·1	2·5	3·1	2·3	1·6	2·6	2·7	4·0	
1945	2·7	1·5	1·8	2·5	2·2	1·9	2·6	2·4	2·6	2·3	2·9	

[1] Exclusive of the Territories.

Age at Maternal Death.—Table **31** shows the distribution of maternal deaths by age, together with the average age at death. This average is slightly more than two years greater than the average age of all mothers at the time of childbirth. The rates per 1,000 live births by age groups show that age is a most important factor in maternal mortality. Though all the rates are much lower than they used to be, the inequalities between the age groups remain. The rate at 30-34 years is nearly twice as high as the rate at 20-24 years, and above the age of 40 it is over four times as high. The slightly higher rate in the first age group shown in Table **31**, compared with the second, is due to the high proportion of illegitimate children born to young mothers.

31.—Maternal Mortality and Rates per 1,000 Live Births, by Age Groups, 1944 and 1945, with Three-Year Averages, 1930-32 and 1940-42

NOTE.—Figures for 1944 and 1945 are by place of residence.

Age Group	Maternal Deaths								Rates per 1,000 Live Births			
	Averages 1930–32		Averages 1940–42		1944		1945		Average 1930–32	Average 1940–42	1944	1945
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.......	76	6·0	47	5·2	30	3·9	28	4·2	5·03	2·80	1·78	1·65
20 – 24 "	216	17·0	151	16·8	146	18·8	110	16·7	3·56	2·13	1·87	1·40
25 – 29 "	271	21·4	212	23·6	186	24·0	161	24·4	4·16	2·77	2·26	1·95
30 – 34 "	278	21·9	206	22·9	200	25·8	136	20·6	5·66	4·03	3·34	2·21
35 – 39 "	263	20·8	180	20·0	141	18·2	135	20·5	7·80	6·14	4·17	3·79
40 – 44 "	140	11·0	91	10·1	70	9·0	81	12·3	10·56	8·72	6·23	6·98
45 – 49 "	23	1·8	11	1·2	3	0·4	8	1·2	16·73	10·00	2·99	7·14
50 years or over......	Nil	–	1	0·1	Nil	–	1	0·2	–	[1]	–	[1]
Totals, Stated Ages...	1,267	100·0	899	100·0	776	100·0	660	100·0	–	–	–	–
Totals, All Ages......	**1,267**	–	**899**	–	**776**	–	660	–	**5·28**	**3·51**	**2·73**	**2·29**
Average Age.........	31·3		31·1		30·8		31·5		–	–	–	–

[1] The number of cases in this age group is too small to justify the calculation of a rate.

Maternal Deaths by Causes.—Table **32** shows, by causes, the numbers and rates of maternal deaths per 100,000 live births. Until recently, puerperal sepsis and toxæmias of pregnancy were by far the most important causes. Since the introduction of sulpha drugs in 1936, the rates from these two causes have been halved.

32.—Maternal Mortality and Rates per 100,000 Live Births, by Causes of Death, 1941-45

Note.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

International List No.	Cause of Death	Numbers of Deaths					Rates per 100,000 Live Births				
		1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
140	Abortion with mention of infection	87	83	77	85	52	34·1	30·5	27·2	29·9	18·0
141	Abortion without mention of infection	39	34	42	26	18	15·3	12·5	14·8	9·1	6·2
142	Ectopic gestation	30	28	30	31	23	11·8	10·3	10·6	10·9	8·0
143	Hæmorrhage of pregnancy—death prior to delivery	12	10	11	8	12	4·7	3·7	3·9	2·8	4·2
144	Toxæmias of pregnancy—death prior to delivery	74	54	42	45	32	29·0	19·8	14·8	15·8	11·1
145	Other diseases and accidents of pregnancy—death prior to delivery	38	23	18	20	18	14·9	8·4	6·3	7·0	6·2
146	Hæmorrhage of childbirth and the puerperium	143	137	159	150	124	56·0	50·3	56·1	52·8	42·9
147	Infection during childbirth and the puerperium	235	228	184	180	178	92·0	83·7	64·9	63·3	61·6
148	Puerperal toxæmias—death following delivery	140	118	117	101	94	54·8	43·3	41·3	35·5	32·6
149	Other accidents of childbirth	66	58	64	76	65	25·9	21·3	22·6	26·7	22·5
150	Other and unspecified conditions of childbirth and the puerperal state	37	45	54	54	44	14·5	16·5	19·0	19·0	15·2
	Totals, All Causes	**901**	818	**798**	**776**	**660**	**352·9**	**300·4**	**281·4**	**273·0**	**228·6**

Section 4.—Natural Increase

In 1926-30 the rate of natural increase in Canada was 13 per 1,000 population. It fell to 9·7 in 1937. Owing partly to the depression, the birth rate fell more than the death rate. Since then, the rate has risen to 12·6 in 1940-42 and 14·5 in 1945.

The rates of natural increase in the provinces followed generally the rate for Canada as a whole. In the earlier years, Saskatchewan and Quebec had the highest rates. The high rates in the Prairie Provinces were partly due to their relatively younger populations and consequent very low death rates. In Quebec, on the other hand, the death rate in 1926-30 was high; it has declined steadily since. Quebec now has the highest rate of natural increase in Canada and one of the highest in any civilized area.

Table **33** shows the numbers and rates of natural increase in Canada and the provinces. Numbers and rates by sex are also shown. It can be seen that in almost all cases, the rates are higher for females than for males. There are two reasons for this. First, the excess of male over female births is relatively smaller than the excess of males over females in the population as a whole, especially in the western provinces. Hence the birth rate for males is lower than the birth rate for females. Secondly, as already noted, the death rate for males is higher than for females.

In a country with a fairly young population such as Canada, in which immigration has been large, an excess of males is to be expected. The higher rate of natural increase for females is the means by which this excess is gradually reduced. Eventually, there will no doubt be an excess of females, as there now is in most European countries.

33.—Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1941-45

NOTE.—Figures for 1944 and 1945 are by residence; for previous years by place of occurrence.

Province and Year		Excess of Births Over Deaths	Rate per 1,000 Population	Males		Females	
				Number	Rate per 1,000 Males	Number	Rate per 1,000 Females
Prince Edward Island	1941	915	9·7	483	9·8	432	9·4
	1942	1,176	13·0	571	12·2	605	14·0
	1943	1,259	13·9	606	12·8	653	15·0
	1944	1,360	14·9	670	14·2	690	15·6
	1945	1,370	14·8	712	14·9	658	14·9
Nova Scotia	1941	6,989	12·1	3,335	11·3	3,654	13·0
	1942	8,921	15·1	4,377	14·5	4,544	15·7
	1943	8,917	14·7	4,308	13·9	4,609	15·5
	1944	9,369	15·3	4,698	15·1	4,671	15·6
	1945	9,902	15·9	4,996	15·8	4,906	16·1
New Brunswick	1941	7,088	15·5	3,396	14·5	3,692	16·5
	1942	7,509	16·2	3,850	16·2	3,659	16·1
	1943	8,173	17·7	4,079	17·2	4,094	18·1
	1944	8,336	18·0	4,177	17·6	4,159	18·5
	1945	8,828	18·9	4,364	18·2	4,464	19·5
Quebec	1941	54,871	16·5	27,561	16·5	27,310	16·5
	1942	61,232	18·0	30,880	18·1	30,352	18·0
	1943	63,675	18·5	31,933	18·4	31,742	18·4
	1944	67,449	19·3	34,104	19·4	33,345	19·2
	1945	70,935	19·9	35,580	19·9	35,355	20·0
Ontario	1941	33,036	8·7	15,705	8·2	17,331	9·3
	1942	39,073	10·0	19,063	9·7	20,010	10·4
	1943	40,110	10·2	19,433	9·8	20,677	10·7
	1944	38,309	9·7	18,826	9·4	19,483	9·9
	1945	39,475	9·8	19,254	9·5	20,221	10·2
Manitoba	1941	8,317	11·4	3,834	10·1	4,483	12·7
	1942	9,260	12·7	4,320	11·5	4,940	14·2
	1943	9,405	12·9	4,454	11·8	4,951	14·2
	1944	9,307	12·7	4,487	11·8	4,820	13·7
	1945	9,703	13·2	4,650	12·3	5,053	14·2
Saskatchewan	1941	12,006	13·4	5,651	11·8	6,355	15·2
	1942	11,999	14·1	5,751	12·6	6,248	15·9
	1943	11,850	14·1	5,652	12·5	6,198	15·9
	1944	11,684	13·8	5,500	12·1	6,184	15·8
	1945	12,497	14·8	5,927	13·1	6,570	16·8

33.—Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1941-45 —concluded

Province and Year		Excess of Births Over Deaths	Rate per 1,000 Population	Males		Females	
				Number	Rate per 1,000 Males	Number	Rate per 1,000 Females
Alberta	1941	10,923	13·7	5,016	11·8	5,907	16·0
	1942	12,226	15·8	5,693	13·6	6,533	18·2
	1943	12,766	16·2	5,841	13·8	6,925	18·9
	1944	13,052	16·0	6,155	14·1	6,897	18·1
	1945	13,485	16·3	6,408	14·6	7,077	18·3
British Columbia	1941	6,533	8·0	2,342	5·4	4,191	10·9
	1942	7,939	9·1	3,066	6·7	4,873	11·8
	1943	8,790	9·8	3,406	7·2	5,384	12·6
	1944	9,302	10·0	3,722	7·6	5,580	12·5
	1945	9,121	9·6	3,670	7·5	5,451	11·9
Canada (Exclusive of the Territories.)	**1941**	**140,678**	**12·2**	**67,323**	**11·4**	**73,355**	**13·1**
	1942	**159,335**	**13·7**	**77,571**	**13·0**	**81,764**	**14·4**
	1943	**164,945**	**13·9**	**79,712**	**13·2**	**85,233**	**14·8**
	1944	**168,168**	**14·1**	**82,339**	**13·5**	**85,829**	**14·7**
	1945	**175,316**	**14·5**	**85,561**	**13·8**	**89,755**	**15·2**

Natural Increase in Urban Centres.—The classification of births and deaths by residence makes it possible to calculate rates of natural increase for urban centres; the figures are given in Table 34. In most of the larger cities, the rate is lower than in their respective provinces. Urban population is also increased by the influx of people from the rural areas.

34.—Natural Increase in Urban Centres of 10,000 Population or Over, 1941-45, with Five-Year Averages, 1936-45

Note.—Figures are by place of occurrence previous to 1941; for 1941 and subsequent years they are by residence.

Province and Urban Centre	Census Populations		Average 1936-40	Average 1941-45	1941	1942	1943	1944	1945
	1931	1941							
P.E. Island—									
Charlottetown	12,361	14,821	141	183	129	213	211	186	172
Nova Scotia—									
Dartmouth	9,100	10,847	57	285	192	291	343	301	298
Glace Bay	20,706	25,147	634	498	502	515	499	480	491
Halifax	59,275	70,488	877	1,241	959	1,293	1,248	1,319	1,389
Sydney	23,089	28,305	455	624	516	634	680	636	657
Truro	7,901	10,272	113	185	175	206	173	208	162
New Brunswick—									
Fredericton	8,830	10,062	83	107	65	118	88	125	137[1]
Moncton	20,689	22,763	278	421	306	421	414	509	458
Saint John	47,514	51,741	613	719	598	720	787	745	743
Quebec—									
Cap-de-la-Madeleine	8,748	11,961	210	274	270	293	267	268	271
Chicoutimi	11,877	16,040	283	706	489	652	750	926	712
Drummondville	6,609	10,555	165	279	250	283	281	298	286
Granby	10,587	14,197	224	332	325	317	327	322	367
Hull	29,433	32,947	487	819	719	792	894	847	844
Joliette	10,765	12,749	121	250	156	291	287	248	272
Jonquière	9,448	13,769	380	705	512	696	812	818	687
Lachine	18,630	20,051	189	271	197	301	299	262	297
Lévis	11,724	11,991	20	203	151	201	211	231	221

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[1] Includes Devon.

34.—Natural Increase in Urban Centres of 10,000 Population or Over, 1941-45, with Five-Year Averages, 1936-45—concluded

Province and Urban Centre	Census Populations		Average 1936-40	Average 1941-45	1941	1942	1943	1944	1945
	1931	1941							
Quebec—concluded									
Montreal	818,577	903,007	8,278	11,471	9,075	11,244	11,576	12,166	13,295
Outremont	28,641	30,751	−118	44	−12	44	91	66	29
Quebec	130,594	150,757	1,919	2,416	2,096	2,463	2,459	2,649	2,412
St. Hyacinthe	13,448	17,798	91	163	142	209	136	176	153
St. Jean	11,256	13,646	132	279	234	253	289	295	327
St. Jérôme	8,967	11,329	169	311	209	344	348	336	315
Shawinigan Falls	15,345	20,325	368	674	500	654	698	735	782
Sherbrooke	28,993	35,965	395	760	609	805	814	721	855
Sorel	10,320	12,251	114	312	212	246	300	420	380
Thetford Mines	10,701	12,716	170	269	298	259	254	258	275
Three Rivers	35,450	42,007	538	821	863	857	797	791	796
Valleyfield	11,411	17,052	186	481	400	520	522	514	452
Verdun	60,745	67,349	306	988	854	958	1,107	988	1,033
Westmount	24,235	26,047	−4	−24	−94	−69	16	44	−15
Ontario—									
Belleville	13,790	15,710	225	205	160	234	238	198	194
Brantford	30,107	31,948	221	346	285	326	404	319	395
Brockville	9,736	11,342	104	102	51	132	103	110	114
Chatham	14,569	17,369	405	193	211	218	220	148	171
Cornwall	11,126	14,117	359	302	252	282	336	329	315
Forest Hill	5,207	11,757	−31	96	107	45	109	111	110
Fort William	26,277	30,585	294	404	315	403	469	400	434
Galt	14,006	15,346	120	140	112	137	144	183	124
Guelph	21,075	23,273	80	198	163	229	216	198	180
Hamilton	155,547	166,337	1,307	1,693	1,239	1,708	1,833	1,913	1,773
Kingston	23,439	30,126	248	467	335	443	595	493	468
Kitchener	30,793	35,657	402	380	371	420	366	330	410
London	71,148	78,264	466	759	689	706	782	787	828
Niagara Falls	19,046	20,589	206	323	274	322	398	311	310
North Bay	15,528	15,599	239	221	203	230	228	243	205
Oshawa	23,439	26,813	326	366	297	396	387	373	376
Ottawa	126,872	154,951	1,353	1,639	1,442	1,552	1,517	1,773	1,914
Owen Sound	12,839	14,002	151	130	140	142	126	143	100
Pembroke	9,368	11,159	118	172	165	178	180	177	160
Peterborough	22,327	25,350	308	363	256	438	341	357	424
Port Arthur	19,818	24,426	364	308	307	348	331	267	286
St. Catharines	24,753	30,275	325	420	333	427	421	484	438
St. Thomas	15,430	17,132	144	145	117	166	194	134	114
Sarnia	18,191	18,734	225	228	191	178	243	258	272
Sault Ste. Marie	23,082	25,794	348	473	416	489	487	464	508
Stratford	17,742	17,038	167	79	85	48	60	133	69
Sudbury	18,518	32,203	1,015	1,056	1,086	1,128	1,102	996	970
Timmins	14,200	28,790	659	652	782	790	610	509	569
Toronto	631,207	667,457	3,331	3,629	2,428	4,427	3,787	3,707	3,795
Welland	10,709	12,500	196	234	156	247	317	255	196
Windsor	98,179	105,311	1,270	1,430	1,327	1,532	1,508	1,490	1,294
Woodstock	11,395	12,461	66	93	42	146	117	64	96
Manitoba—									
Brandon	17,082	17,383	14	191	120	161	252	220	203
St. Boniface	16,305	18,157	754	238	223	191	249	276	253
Winnipeg	218,785	221,960	1,838	1,932	1,538	1,935	2,085	2,017	2,087
Saskatchewan—									
Moose Jaw	21,299	20,753	265	250	189	273	296	258	232
Prince Albert	9,905	12,508	313	226	202	228	221	231	247
Regina	53,209	58,245	767	733	713	741	778	692	743
Saskatoon	43,291	43,027	422	490	441	441	484	545	537
Alberta—									
Calgary	83,761	88,904	867	1,180	955	1,098	1,261	1,277	1,310
Edmonton	79,197	93,817	1,640	1,549	1,142	1,345	1,689	1,686	1,883
Lethbridge	13,489	14,612	437	228	128	230	240	277	262
Medicine Hat	10,300	10,571	207	164	105	158	236	189	132
British Columbia—									
New Westminster	17,524	21,967	445	260	270	215	269	250	297
Vancouver	246,593	275,353	1,197	2,020	1,344	2,020	2,190	2,393	2,151
Victoria	39,082	44,068	124	462	191	413	693	601	414

Section 5.—Marriages and Divorces

Subsection 1.—Marriages

In modern industrial countries, the marriage rate varies with the level of economic prosperity. Marriage rates fell during the depression and recovered in the later 1930's. In Canada, England and the United States, the number of marriages was exceptionally high in 1940-42. There has been a considerable drop since then. There were 86 p.c. more marriages in 1942 than the average for 1931-35 and 104 p.c. more than in 1932, the lowest year. There were 20 p.c. fewer marriages in 1944 than in 1942 and 15 p.c. fewer in 1945 than in 1944.

Numbers and Birthplaces of Brides and Bridegrooms.—Table 35 shows the number of marriages and the marriage rates per 1,000 population in Canada and the provinces. Percentages of brides and bridegrooms according to place of birth are also given.

The proportion of brides and bridegrooms born in Canada is increasing. The average in 1941-45 was more than 10 p.c. greater than in 1931-35. In the western provinces, over one-third of the marriages solemnized in 1931-35 were between persons born outside Canada. In 1941-45, taking Canada as a whole, approximately 88 p.c. of all bridegrooms and 92 p.c. of all brides were born in Canada. In the western provinces the proportions were 76 p.c. and 86 p.c., respectively. The higher proportion of marriages between persons born in Canada is due to the smaller immigration of recent years.

35.—Marriages and Marriage Rates, by Provinces, together with Percentage Distribution of Grooms and Brides by Nativity, 1941-45, with Five-Year Averages, 1936-45.

Province and Year	Marriages		Percentage Distribution of Grooms and Brides, by Nativity					
	Total	Rate per 1,000 Population	Born in Province of Residence		Born in Other Provinces		Born Outside Canada	
			Grooms	Brides	Grooms	Brides	Grooms	Brides
	No.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
P. E. Island.........Av. 1936-40	623	6·6	88·4	92·9	6·3	4·5	5·3	2·6
Av. 1941-45	686	7·5	73·9	87·0	16·6	9·6	9·4	3·4
1941	673	7·1	78·8	86·6	15·0	9·4	6·2	4·0
1942	778	8·6	75·1	87·5	13·5	10·0	11·4	2·4
1943	653	7·2	71·5	85·5	15·0	10·6	13·5	4·0
1944	646	7·1	68·9	87·6	20·1	9·6	11·0	2·8
1945	680	7·4	75·0	87·6	20·0	8·5	5·0	3·8
Nova Scotia.........Av. 1936-40	4,796	8·6	82·4	87·3	8·1	5·8	9·5	6·9
Av. 1941-45	6,302	10·5	67·4	81·3	22·5	11·5	10·1	7·2
1941	6,596	11·4	73·2	83·8	16·8	9·5	10·0	6·7
1942	6,874	11·6	72·3	83·5	18·5	10·1	9·2	6·4
1943	6,105	10·1	64·3	80·6	24·4	12·0	11·3	7·5
1944	5,942	9·7	62·2	78·5	27·1	14·0	10·8	7·5
1945	5,992	9·6	63·5	79·4	27·0	12·6	9·5	8·0
New Brunswick.....Av. 1936-40	3,801	8·6	82·1	86·8	9·2	7·3	8·7	5·9
Av. 1941-45	4,433	9·6	75·2	85·2	15·4	8·9	9·4	5·9
1941	4,941	10·8	78·5	84·4	13·3	9·7	8·2	5·9
1942	4,934	10·6	76·4	85·1	14·4	8·5	9·2	6·3
1943	3,985	8·6	73·6	85·0	15·9	8·9	10·5	6·1
1944	3,813	8·3	72·5	85·9	16·8	8·8	10·7	5·3
1945	4,491	9·6	74·1	85·5	17·1	8·6	8·8	5·9

35.—Marriages and Marriage Rates, by Provinces, together with Percentage Distribution of Grooms and Brides by Nativity, 1941-45, with Five-Year Averages, 1936-45—concluded.

Province and Year	Marriages		Percentage Distribution of Grooms and Brides, by Nativity					
	Total	Rate per 1,000 Population	Born in Province of Residence		Born in Other Provinces		Born Outside Canada	
			Grooms	Brides	Grooms	Brides	Grooms	Brides
	No.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Quebec Av. 1936-40	27,111	8·5	86·8	89·8	4·9	4·6	8·3	5·5
Av. 1941-45	33,126	9·6	87·2	90·3	6·6	5·5	6·2	4·1
1941	32,782	9·8	86·1	89·3	6·7	5·9	7·2	4·8
1942	33,857	10·0	86·4	89·2	7·0	6·3	6·6	4·5
1943	33,856	9·8	88·2	91·1	6·4	5·2	5·5	3·7
1944	31,922	9·1	88·1	91·4	6·2	4·9	5·7	3·7
1945	33,211	9·3	87·4	90·7	6·7	5·3	5·9	3·9
Ontario Av. 1936-40	32,719	8·9	81·3	84·0	4·9	5·4	13·8	10·6
Av. 1941-45	38,042	9·7	84·3	85·7	6·8	6·8	8·9	7·5
1941	43,270	11·4	89·2	89·0	4·2	4·5	6·7	6·5
1942	45,466	11·7	86·8	88·3	5·4	5·2	7·8	6·5
1943	36,109	9·2	88·2	88·2	5·1	5·6	6·8	6·2
1944	31,227	7·9	80·3	82·0	8·6	9·2	11·1	8·9
1945	34,137	8·5	74·5	78·7	12·1	11·1	13·4	10·2
Manitoba Av. 1936-40	6,931	9·6	61·1	72·8	14·0	12·4	24·9	14·8
Av. 1941-45	7,295	10·0	62·3	73·6	18·7	15·1	19·0	11·2
1941	8,305	11·4	63·0	73·7	17·4	15·0	19·6	11·4
1942	8,395	11·6	63·0	73·4	18·1	15·0	19·0	11·6
1943	6,901	9·5	61·6	74·0	18·9	15·3	19·5	10·8
1944	6,294	8·6	60·6	73·3	19·8	14·6	19·5	12·1
1945	6,579	8·9	62·8	73·8	20·0	15·9	17·3	10·4
Saskatchewan Av. 1936-40	6,599	7·2	56·6	75·4	16·8	11·3	26·5	13·2
Av. 1941-45	6,541	7·6	66·5	81·2	15·3	9·0	18·2	9·7
1941	7,036	7·9	64·7	79·1	16·1	10·0	19·1	10·9
1942	7,207	8·5	65·4	81·2	15·5	9·0	19·1	9·9
1943	6,172	7·3	64·9	81·1	15·3	8·9	19·8	10·0
1944	5,919	7·0	67·4	82·2	14·6	8·5	18·0	9·3
1945	6,369	7·5	70·5	82·8	14·6	8·7	14·9	8·4
Alberta Av. 1936-40	7,192	9·2	44·2	60·4	21·9	19·4	33·9	20·2
Av. 1941-45	7,977	10·0	48·1	62·7	24·4	20·8	27·5	16·5
1941	8,470	10·6	50·0	63·4	23·9	19·9	26·2	16·8
1942	9,034	11·6	48·8	63·1	25·2	21·3	26·0	15·6
1943	7,771	9·8	45·7	61·6	24·8	21·2	29·5	17·2
1944	7,299	8·9	45·7	61·6	24·4	21·1	29·9	17·2
1945	7,310	8·8	49·9	63·9	23·7	20·3	26·4	15·8
British Columbia Av. 1936-40	7,053	9·1	34·8	43·1	31·8	34·6	33·4	22·3
Av. 1941-45	9,535	10·7	32·3	41·2	40·2	40·3	27·5	18·5
1941	9,769	11·9	35·9	43·5	35·6	37·1	28·5	19·4
1942	10,827	12·4	34·2	41·3	38·9	40·6	26·9	18·1
1943	9,385	10·4	30·4	40·4	42·2	41·0	27·4	18·6
1944	8,434	9·0	29·9	40·3	41·5	41·2	28·6	18·4
1945	9,262	9·8	30·3	40·2	43·2	42·0	26·5	17·9
Canada (Exclusive of the Territories) **Av. 1936-40**	**96,824**	**8·7**	**73·7**	**79·9**	**9·9**	**9·4**	**16·4**	**10·8**
Av. 1941-45	**113,936**	**9·7**	**74·5**	**80·4**	**13·3**	**11·2**	**12·2**	**8·3**
1941	**121,842**	**10·6**	**76·8**	**81·5**	**11·4**	**10·1**	**11·7**	**8·4**
1942	**127,372**	**10·9**	**75·5**	**81·0**	**12·6**	**10·9**	**11·9**	**8·1**
1943	**110,937**	**9·4**	**75·4**	**81·3**	**12·9**	**10·8**	**11·6**	**7·8**
1944	**101,496**	**8·5**	**72·7**	**79·5**	**14·2**	**11·9**	**13·1**	**8·6**
1945	**108,031**	**8·9**	**71·4**	**78·4**	**15·6**	**12·7**	**13·0**	**8·9**

International Comparisons.—Table **36** shows the marriage rates in Canada and the provinces in comparison with those of other countries. Canadian marriage rates are relatively high.

36.—Marriage Rates per 1,000 Population of Various Countries of the World Compared with Canada and the Provinces for Recent Years

Sources: League of Nations Year Book and other official sources. In certain cases final figures are not available and provisional data are shown.

Country or Province	Year	Marriage Rate
Austria	1939	17·7
Latvia	1941	13·3
United States	1945	12·3
Germany (territory of 1937)	1939	11·8
Estonia	1941	11·0
Union of South Africa (Whites)	1943	10·8
Belgium	1945	10·0
France (86 departments)	1945	9·5
Newfoundland and Labrador	1944	9·5
Sweden	1945	9·5
Scotland	1945	9·4
Denmark	1944	9·3
England and Wales	1945	9·3
Bulgaria	1944	9·2
Canada[1]	**1945**	**8·9**
British Columbia	1945	9·8
New Brunswick	1945	9·6
Nova Scotia	1945	9·6
Quebec	1945	9·3
Manitoba	1945	8·9
Alberta	1945	8·8
Canada—concluded.		
Ontario	1945	8·5
Saskatchewan	1945	7·5
Prince Edward Island	1945	7·4
Norway	1941	8·9
Australia	1945	8·5
Finland	1944	8·4
New Zealand	1944	8·4
Poland	1938	8·1
Switzerland	1944	8·0
Chile	1945	7·9
Northern Ireland	1945	7·9
Japan	1938	7·5
Lithuania	1939	7·5
Hungary	1943	7·3
Uruguay	1942	7·2
Spain	1944	7·0
Roumania	1943	6·9
Italy	1945	6·8
Greece	1938	6·5
Eire	1945	5·8
Ceylon	1939	5·5
Netherlands	1944	5·5
Panama	1937	4·8
Jamaica	1937	4·6
Salvador	1943	3·3

[1] Does not include marriages of Canadians overseas.

Age and Marital Status of Brides and Bridegrooms.—The distribution of brides and bridegrooms by age and marital status is shown in Table **37**. Nearly 90 p.c. of marriages are between persons who have not previously been married. The average age at marriage of bachelors is about 27 years and that of spinsters between 24 and 25 years. The average age of widowers and widows at the time of re-marriage is more than 20 years greater than that of bachelors and spinsters, being 50·3 years in 1940-42 and 51·7 in 1945 for widowers and 46·4 and 45·4, respectively, for widows. The age distribution of widowers and widows at the time of re-marriage is, of course, very different from that of bachelors and spinsters.

Widowers and widows were 6 p.c. and 5 p.c., respectively, of all bridegrooms and brides in 1945. This compares with 3·8 and 2·7 p.c., respectively, in 1940-42. Divorced persons are 2·5 p.c. of the total.

37.—Marriages, by Age and Marital Status of Contracting Parties, 1943-45

Age Group	BRIDEGROOMS											
	1943				1944				1945			
	Bachelors	Widowers	Divorced	Total	Bachelors	Widowers	Divorced	Total	Bachelors	Widowers	Divorced	Total
	Numbers											
Under 20 years..	4,575	Nil	1	4,576	4,924	1	Nil	4,925	5,049	Nil	Nil	5,049
20-24 years..	40,367	43	35	40,445	37,497	53	40	37,590	40,274	50	69	40,393
25-29 " ..	32,125	247	272	32,644	27,109	179	258	27,546	29,315	253	405	29,973
30-34 " ..	14,056	527	499	15,082	12,498	405	431	13,334	13,156	452	711	14,319
35-39 " ..	6,213	606	479	7,298	5,775	514	484	6,773	5,686	577	603	6,866
40-44 " ..	2,705	710	360	3,775	2,906	611	354	3,871	2,746	664	459	3,869
45-49 " ..	1,259	806	254	2,319	1,432	671	238	2,341	1,346	741	306	2,393
50-54 " ..	575	876	147	1,598	739	806	147	1,692	647	776	164	1,587
55-59 " ..	298	874	66	1,238	404	822	84	1,310	354	925	101	1,380
60-64 " ..	137	709	29	875	218	698	34	950	160	774	48	982
65 years or over......	65	994	8	1,067	148	980	19	1,147	123	1,040	26	1,189
Totals, Stated Ages	102,375	6,392	2,150	110,917	93,650	5,740	2,089	101,479	98,856	6,252	2,892	108,000
Ages not stated....	14	5	1	20	15	2	Nil	17	29	2	Nil	31
Totals, All Ages......	**102,389**	**6,397**	**2,151**	**110,937**	**93,665**	**5,742**	**2,089**	**101,496**	98,885	6,254	2,892	108,031
Average age	27·4	51·0	38·9	29·0	27·6	52·0	39·5	29·2	27·3	51·7	38·6	29·0
	Percentages											
Under 20 years..	4·5	–	[1]	4·1	5·3	[1]	–	4·9	5·1	–	–	4·7
20-24 years..	39·4	0·7	1·6	36·5	40·0	0·9	1·9	37·0	40·7	0·8	2·4	37·4
25-29 " ..	31·4	3·9	12·7	29·4	29·0	3·1	12·4	27·2	29·7	4·0	14·0	27·8
30-34 " ..	13·7	8·2	23·2	13·6	13·3	7·1	20·6	13·1	13·3	7·2	24·6	13·3
35-39 " ..	6·1	9·5	22·3	6·6	6·2	9·0	23·2	6·7	5·8	9·2	20·9	6·4
40-44 " ..	2·6	11·1	16·7	3·4	3·1	10·6	17·0	3·8	2·8	10·6	15·9	3·6
45-49 " ..	1·2	12·6	11·8	2·1	1·5	11·7	11·4	2·3	1·4	11·9	10·6	2·2
50-54 " ..	0·6	13·7	6·8	1·4	0·8	14·0	7·0	1·7	0·7	12·4	5·7	1·5
55-59 " ..	0·3	13·7	3·1	1·1	0·4	14·3	4·0	1·3	0·4	14·8	3·5	1·3
60-64 " ..	0·1	11·1	1·3	0·8	0·2	12·2	1·6	0·9	0·2	12·4	1·7	0·9
65 years or over......	0·1	15·6	0·4	1·0	0·2	17·1	0·9	1·1	0·1	16·6	0·9	1·1
Totals, Stated Ages	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Percentage..	92·3	5·8	1·9	100·0	92·3	5·7	2·1	100·0	91·5	5·8	2·7	100·0

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[1] Less than one-tenth of one per cent.

37.—Marriages by Age and Marital Status of Contracting Parties, 1943-45—concluded

Age Group	BRIDES											
	1943				1944				1945			
	Spinsters	Widows	Divorced	Total	Spinsters	Widows	Divorced	Total	Spinsters	Widows	Divorced	Total
	Numbers											
Under 20 years..	23,277	10	6	23,293	21,822	21	6	21,849	22,624	22	5	22,651
20-24 " ..	48,094	158	207	48,459	43,791	184	220	44,195	47,140	414	325	47,879
25-29 " ..	19,819	345	479	20,643	16,952	284	436	17,672	18,006	473	605	19,084
30-34 " ..	7,330	508	531	8,369	6,671	409	486	7,566	6,758	516	631	7,905
35-39 " ..	3,016	620	411	4,047	3,013	476	356	3,845	2,964	523	493	3,980
40-44 " ..	1,294	729	197	2,220	1,375	599	212	2,186	1,325	646	256	2,227
45-49 " ..	576	684	138	1,398	766	645	132	1,543	677	675	141	1,493
50-54 " ..	250	639	60	949	347	575	69	991	303	659	74	1,036
55-59 " ..	98	502	19	619	201	484	18	703	160	584	29	773
60-64 " ..	46	394	8	448	89	358	9	456	71	388	6	465
65 years or over......	35	434	3	472	60	410	3	473	49	455	2	506
Totals, Stated Ages	103,835	5,023	2,059	110,917	95,087	4,445	1,947	101,479	100,077	5,355	2,567	107,999
Ages not stated....	20	Nil	Nil	20	17	Nil	Nil	17	26	4	2	32
Totals, All Ages......	**103,855**	**5,023**	**2,059**	**110,937**	**95,104**	**4,445**	**1,947**	**101,496**	**100,103**	**5,359**	**2,569**	**108,031**
Average age	24·2	46·6	34·2	25·4	24·4	46·9	34·4	25·6	24·3	45·4	33·8	25·5
	Percentages											
Under 20 years..	22·4	0·2	0·3	21·0	22·9	0·5	0·3	21·5	22·6	0·4	0·2	21·0
20-24 " ..	46·3	3·1	10·1	43·7	46·1	4·1	11·3	43·6	47·1	7·7	12·7	44·3
25-29 " ..	19·1	6·9	23·3	18·6	17·8	6·4	22·4	17·4	18·0	8·8	23·6	17·7
30-34 " ..	7·1	10·1	25·8	7·5	7·0	9·2	25·0	7·5	6·8	9·6	24·6	7·3
35-39 " ..	2·9	12·3	20·0	3·6	3·2	10·7	18·3	3·8	3·0	9·8	19·2	3·7
40-44 " ..	1·2	14·5	9·6	2·0	1·4	13·5	10·9	2·2	1·3	12·1	10·0	2·1
45-49 " ..	0·6	13·6	6·7	1·3	0·8	14·5	6·8	1·5	0·7	12·6	5·5	1·4
50-54 " ..	0·2	12·7	2·9	0·9	0·4	12·9	3·5	1·0	0·3	12·3	2·9	1·0
55-59 " ..	0·1	10·0	0·9	0·6	0·2	10·9	0·9	0·7	0·2	10·9	1·1	0·7
60-64 " ..	[1]	7·8	0·4	0·4	0·1	8·1	0·5	0·4	0·1	7·2	0·2	0·4
65 years or over......	[1]	8·6	0·1	0·4	0·1	9·2	0·2	0·5	[1]	8·5	0·1	0·5
Totals, Stated Ages	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Percentage..	93·6	4·5	1·9	100·0	93·7	4·4	1·9	100·0	92·7	5·0	2·4	100·0

[1] Less than one-tenth of one per cent.

Religious Denominations of Brides and Bridegrooms.—The distribution of brides and bridegrooms by religious denominations is roughly the same as that for the population as a whole. Table **38** shows the very strong influence that religion has on brides and bridegrooms. Approximately 70 p.c. of all marriages are between persons of the same religious denomination. The proportion of brides and bridegrooms of the same denomination is over 60 p.c. for all denominations except Anglicans, Lutherans, Baptists, Presbyterians and Eastern Orthodox. The proportion of brides and bridegrooms of the same denomination is highest among those of Jewish faith, with 97 p.c. in 1940-42. The percentage among Roman Catholics was 88.

38.—Marriages by Religious Denominations of Contracting Parties, 1943-45

Denomination of Grooms and Year	Denominations of Brides											Total Marriages	Percentage
	Anglican	Baptist	Eastern Orthodox	Greek Catholic	Jewish	Lutheran	Presbyterian	Roman Catholic	United Church	Other Sects	Not Stated		
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
1943													
Anglican	7,987	773	60	44	11	295	1,201	1,496	3,844	500	6	16,217	14·6
Baptist	710	2,001	20	10	2	112	266	312	961	253	2	4,649	4·2
Eastern Orthodox	66	10	735	109	3	20	24	138	59	34	1	1,199	1·1
Greek Catholic	33	2	72	977	2	24	11	261	49	28	Nil	1,459	1·3
Jewish	24	10	2	3	1,649	7	7	35	26	9	1	1,773	1·6
Lutheran	441	121	39	38	2	1,497	163	353	616	226	3	3,499	3·2
Presbyterian	1,394	362	27	18	9	173	2,383	620	1,663	230	1	6,880	6·2
Roman Catholic	1,341	275	119	291	15	296	474	42,733	1,334	380	4	47,262	42·6
United Church	3,316	939	77	76	10	461	1,264	1,483	13,445	617	4	21,692	19·5
Other sects	504	242	30	32	9	193	240	547	710	3,725	3	6,235	5·6
Not stated	14	3	Nil	Nil	Nil	3	4	15	9	6	18	72	0·1
Totals, 1943	**15,830**	**4,738**	**1,181**	**1,598**	**1,712**	**3,081**	**6,037**	**47,993**	**22,716**	**6,008**	**43**	**110,937**	**100·0**
Percentage	14·3	4·3	1·1	1·4	1·5	2·8	5·4	43·3	20·5	5·4	[1]	100·0	69·5[2]
1944													
Anglican	6,821	712	59	41	15	313	972	1,374	3,463	442	5	14,217	14·0
Baptist	617	1,830	13	10	5	90	262	329	830	218	Nil	4,204	4·1
Eastern Orthodox	80	11	721	99	3	27	33	129	75	23	"	1,201	1·2
Greek Catholic	33	8	73	956	Nil	32	6	220	49	23	1	1,401	1·4
Jewish	42	8	1	1	1,574	5	8	33	32	6	Nil	1,710	1·7
Lutheran	394	129	38	35	1	1,351	161	389	609	225	2	3,334	3·3
Presbyterian	1,153	296	32	16	4	166	2,041	570	1,389	212	1	5,880	5·8
Roman Catholic	1,182	264	108	306	17	254	422	40,279	1,246	396	7	44,481	43·8
United Church	2,980	892	69	51	7	453	1,104	1,261	11,655	515	8	18,995	18·7
Other sects	457	238	35	43	7	217	221	546	686	3,560	3	6,013	5·9
Not stated	10	4	Nil	1	Nil	Nil	1	8	21	2	13	60	0·1
Totals, 1944	**13,769**	**4,392**	**1,149**	**1,559**	**1,633**	**2,908**	**5,231**	**45,138**	**20,055**	**5,622**	**40**	**101,496**	**100·0**
Percentage	13·6	4·3	1·1	1·5	1·6	2·9	5·2	44·5	19·8	5·5	[1]	100·0	69·8[2]
1945													
Anglican	7,423	761	77	55	8	330	1,057	1,417	3,763	473	7	15,371	14·2
Baptist	724	2,027	9	6	2	96	236	351	916	242	1	4,610	4·3
Eastern Orthodox	52	14	667	85	3	30	22	131	103	29	2	1,138	1·1
Greek Catholic	33	4	66	917	Nil	24	11	225	49	17	3	1,349	1·2
Jewish	20	3	1	Nil	1,583	6	3	25	18	13	1	1,673	1·5
Lutheran	394	116	45	30	4	1,384	170	371	636	205	2	3,357	3·1
Presbyterian	1,276	319	17	21	3	192	2,265	597	1,529	209	4	6,432	6·0
Roman Catholic	1,300	290	111	298	13	267	417	42,109	1,359	401	13	46,578	43·1
United Church	3,431	976	66	70	8	529	1,189	1,454	13,023	562	7	21,315	19·7
Other sects	451	253	53	32	11	195	197	524	702	3,711	13	6,142	5·7
Not stated	16	Nil	Nil	2	Nil	2	3	7	8	4	24	66	0·1
Totals, 1945	**15,120**	**4,763**	**1,112**	**1,516**	**1,635**	**3,055**	**5,570**	**47,211**	**22,106**	**5,866**	**77**	**108,031**	**100·0**
Percentage	14·0	4·4	1·0	1·4	1·5	2·8	5·2	43·7	20·5	5·4	0·1	100·0	69·5[2]

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[1] Less than one-tenth of one per cent.

[2] Percentage of marriages between contracting parties of the same religious denomination.

Subsection 2.—Dissolutions of Marriage (Divorces)

For many years after Confederation, the number of divorces in Canada was very small. It was less than 20 in every year before 1900. There were 23 divorces in 1903, 51 in 1909 and 60 in 1913. These numbers were less than 1 per 1,000 of the yearly number of marriages.

One effect of the First World War was to increase the number of divorces. The generally unsettled conditions and the long separation between men on active service and their wives contributed to this increase. Changes in law and procedure which made it easier to obtain divorce was a further factor. A decision of the Privy Council in 1918 gave the Prairie Provinces jurisdiction over divorce. At present, Quebec is the only province in which applicants for divorce must secure a private Act of Parliament.

There were 114 divorces in Canada in 1918 and 608 in 1926. There were 700 in 1931, 1,570 in 1936 and 2,369 in 1940. In every year since the number of divorces has been greater than in the year before. The figures for the most part cover only final decrees of dissolution of marriage which alone constitute divorces; annulments and legal separations are excluded.

The statistics of dissolutions of marriage were revised in 1941 with the co-operation of the provincial authorities and the Clerk of the Divorce Committee of the Senate of Canada.

39.—Dissolutions of Marriage (Divorces), by Provinces, 1941-45, with Five-Year Averages, 1936-45

Item	Granted by Parliament of Canada		Granted by the Courts							Canada[1]
	P.E.I.	Que.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.	
Numbers—										
Av. 1936-40	1	56	50	44	723	194	116	259	570	2,013
Av. 1941-45	2	99	92	104	1,358	305	207	432	937	3,535
1941	1	48	68	87	949	242	146	311	609	2,461
1942	2	71	70	69	1,185	284	209	375	824	3,089
1943	2	90	73	114	1,243	277	174	413	877	3,263
1944	3	108	93	78	1,471	316	226	484	1,009	3,788
1945	2	177	158	171	1,940	405	282	575	1,366	5,076
Percentages—										
Av. 1936-40	[2]	2·8	2·5	2·2	35·9	9·6	5·8	12·9	28·3	100·0
Av. 1941-45	0·1	2·8	2·6	2·9	38·4	8·6	5·9	12·2	26·5	100·0
1941	[2]	2·0	2·8	3·5	38·6	9·8	5·9	12·6	24·7	100·0
1942	0·1	2·3	2·3	2·2	38·4	9·2	6·8	12·1	26·7	100·0
1943	0·1	2·8	2·2	3·5	38·1	8·5	5·3	12·7	26·9	100·0
1944	0·1	2·8	2·5	2·1	38·8	8·3	6·0	12·8	26·6	100·0
1945	[2]	3·5	3·1	3·4	38·2	8·0	5·6	11·3	26·9	100·0

[1] Exclusive of the Territories.

[2] Less than one-tenth of one per cent.

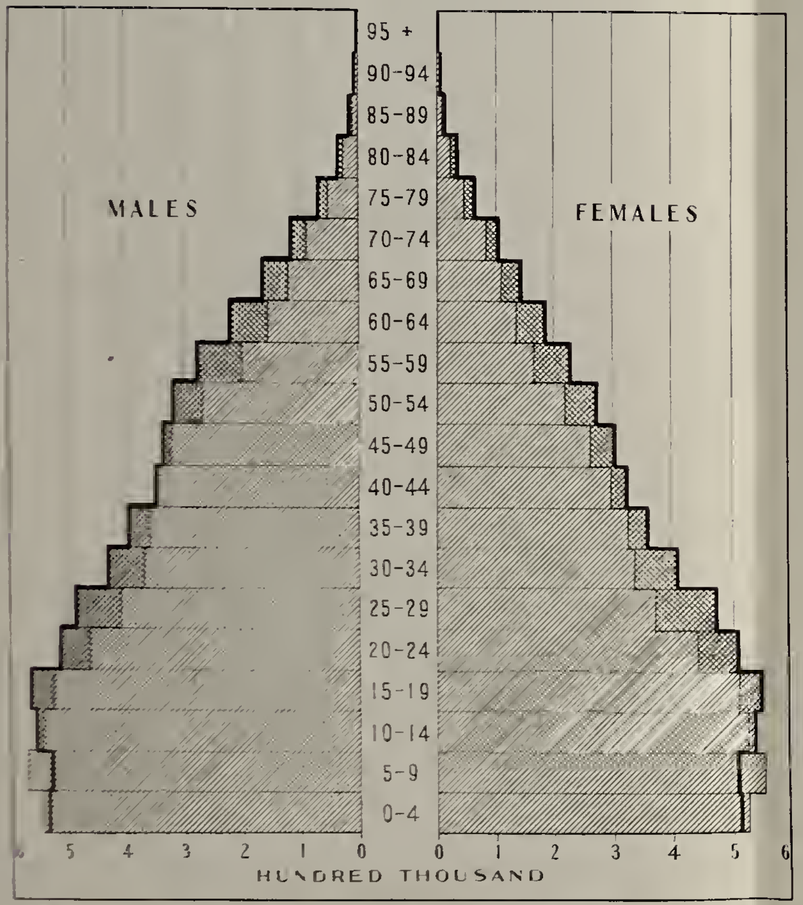
Section 6.—Vital Statistics of Yukon and the Northwest Territories

The vital statistics of Yukon and the Northwest Territories have been collected since 1924. They are not, however, presented with those of the nine provinces in the tables of this Chapter, because the figures are not considered complete. The details are in many cases not available, and the small and varying population

GRAPHIC RECORD OF VITAL STATISTICS IN CANADA*
1926 - 45

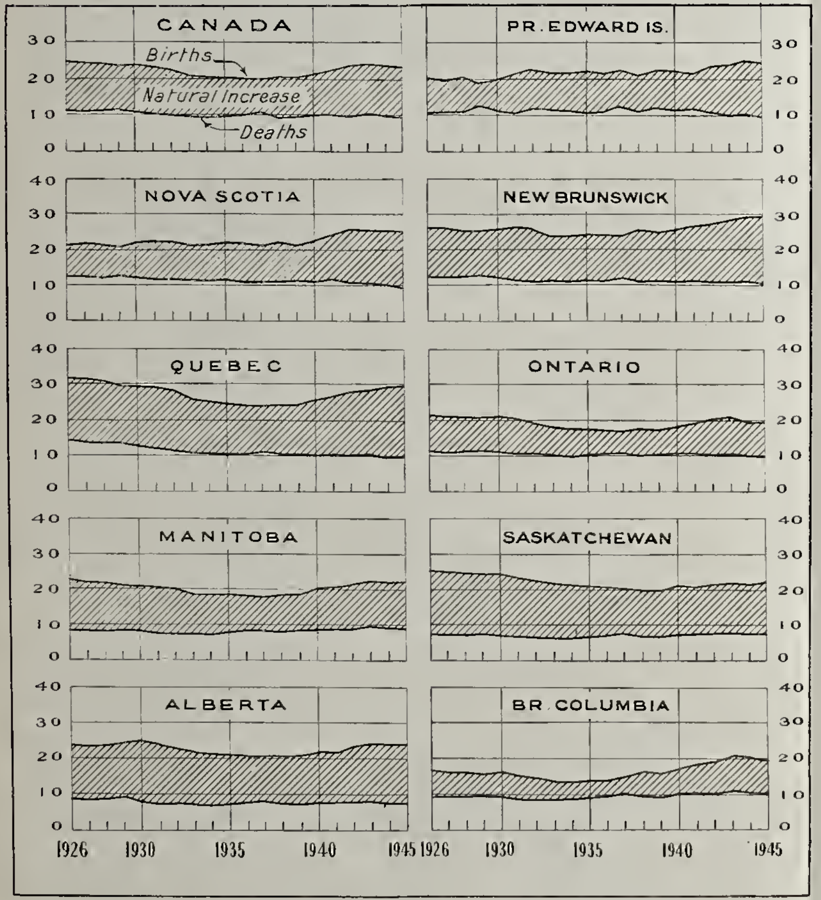
POPULATION OF CANADA BY SEX AND QUINQUENNIAL AGE GROUPS

1931 —— 1941 ——



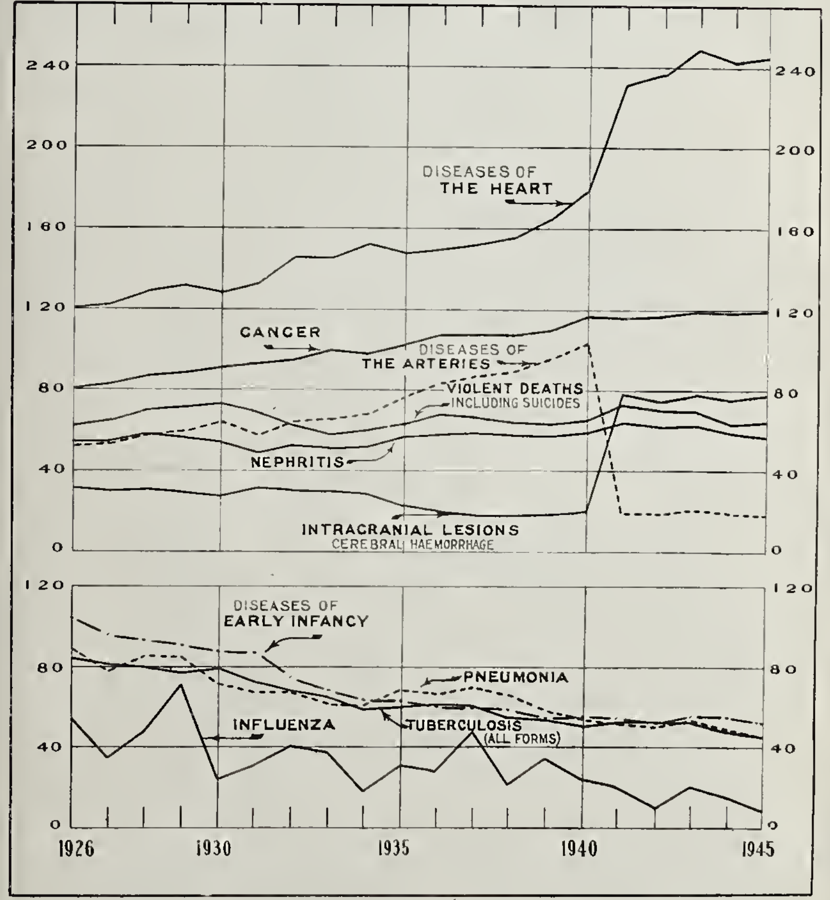
BIRTH RATES, DEATH RATES AND RATES OF NATURAL INCREASE

Rates per 1,000 Population



TEN LEADING CAUSES OF DEATH

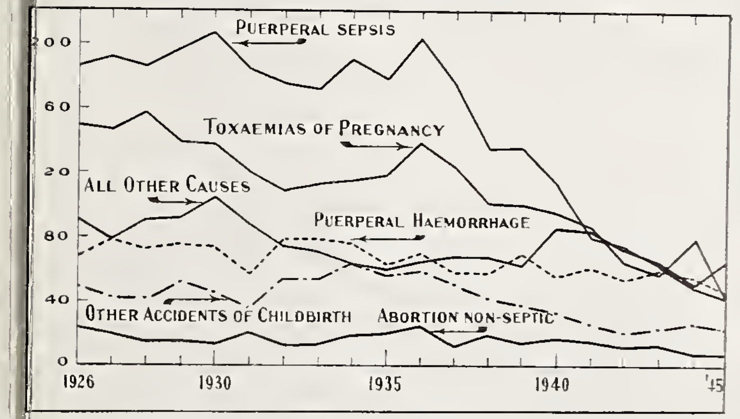
Rates per 100,000 Population



MATERNAL MORTALITY

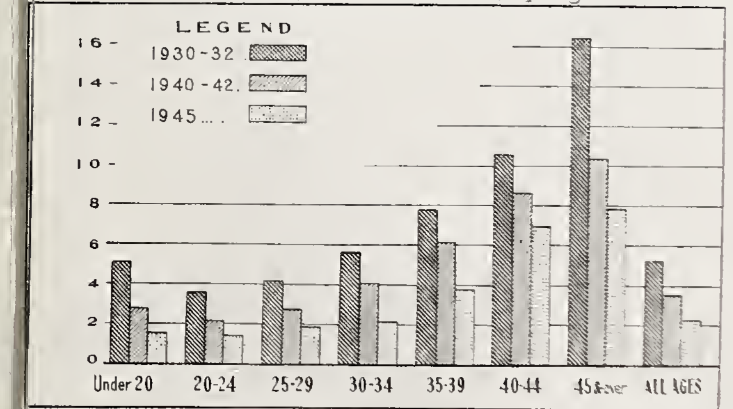
GROUP CAUSES OF DEATH

Rates per 100,000 Live Births



MATERNAL MORTALITY

Rates per 1,000 Live Births, by Ages



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*Exclusive of Yukon and The Northwest Territories

of each year is not very accurately known. As these Territories contain less than one seven-hundredth of the population of Canada, the error due to the omission of their vital statistics from the total is very small.

Section 7.—Communicable Diseases

The national reporting of communicable diseases in Canada was undertaken in 1933 by the Dominion Bureau of Statistics, at the request of the Department of Pensions and National Health and in co-operation with the Provincial Departments of Health. Since then, the Vital Statistics Division of the Bureau has been responsible for the compilation and analysis of weekly communicable disease reports, except for a short period in 1939-40, when the work was transferred to the Department of Pensions and National Health. Under arrangements with the Department of National Health and Welfare, the Vital Statistics Division is now analysing the accumulated records of communicable diseases in its files, many of which date back to 1924. The reports of cases of venereal disease are included in the current analyses and a standard report form is used by all the provinces.

Table **40** shows the number of cases of communicable diseases reported to the Dominion Bureau of Statistics by the Provincial Departments of Health in 1945. The reporting of two diseases, dysentery and rubella, is not compulsory in all provinces. The totals for Canada should therefore be considered with caution.

40.—Numbers of Cases of Certain Communicable Diseases Reported by Provincial Health Departments, 1945

Disease	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
Chickenpox	42	789	37	6,313	12,491	2,446	1,677	3,147	4,705	31,647
Diphtheria	19	223	166	1,678	253	283	74	54	36	2,786
Dysentery	Nil	Nil	[1]	186	46[2]	23	Nil	Nil	292[3]	547
Amoebic	"	"	[1]	Nil	10	3	"	"	Nil	13
Bacillary	"	"	[1]	186	2	20	"	"	155	363
Encephalitis (infectious)	"	1	Nil	Nil	2	8	2	4	Nil	17
Influenza (epidemic)	84	1,241	1	"	2,374	202	36	Nil	653	4,591
Measles	5	169	189	5,676	8,713	509	1,225	1,415	9,077	26,978
Meningitis (meningococcal)	1	13	23	52	86	14	12	22	26	249
Mumps	Nil	189	23	7,203	5,222	1,496	950	4,141	1,176	20,400
Poliomyelitis (epidemic)	"	26	7	57	184	24	20	14	52	384
Rubella [4]	"	261	Nil	383	1,108	35	123	618	770	3,298
Scarlet fever	41	326	662	3,772	3,684	775	333	1,348	1,041	11,982
Smallpox	Nil	Nil	Nil	Nil	Nil	Nil	5	Nil	Nil	5
Tuberculosis	412	343	333	6,372	2,393	807	614[6]	1,039	2,015	14,328
Pulmonary	[5]	329	332	6,062	[5]	656	535	1,008	1,858	10,780
Non-pulmonary	[5]	14	1	310	[5]	151	56	31	157	720
Typhoid and paratyphoid	Nil	21	26	588	88	46	21	44	49	883
Undulant fever	"	1	1	139	84	13	10	13	27	288
Venereal diseases	78	1,840	1,492	11,152	13,154	2,958	2,097	2,480	5,277	40,528
Syphilis	34	664	413	6,037	4,930	622	411	599	1,569	15,279
Gonorrhœa	42	1,176	1,079	5,106	8,224	2,336	1,685	1,881	3,708	25,237
Other venereal diseases	2	Nil	Nil	9	Nil	Nil	1	Nil	Nil	12
Whooping cough	4	527	234	7,363	2,309	376	164	692	523	12,192

[1] Not reportable in the Province of New Brunswick. [2] Including 34 cases where type was not stated. [3] Including 137 cases where type was not stated. [4] Reporting not compulsory in the Provinces of New Brunswick and Manitoba. [5] Type not segregated. [6] Including 23 cases where type was not stated.

CHAPTER VII.—PUBLIC HEALTH AND RELATED INSTITUTIONS

CONSPECTUS

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Section 1.—Administration

In Canada public health is administered by Dominion and Provincial Governments through their respective Health Departments.

The Dominion has jurisdiction only respecting such public-health matters as are exclusively international, national and interprovincial. The Dominion Government makes grants to Provincial Departments of Health and to voluntary organizations engaged in public-health work. Treatment for members and ex-members of the Armed Forces is provided by the Department of Veterans Affairs in veterans services and public hospitals.

The Dominion Council of Health, created originally in 1919, is responsible for correlating and co-ordinating the activities of Provincial Departments of Health; it comprises the Deputy Minister of Health of each of the provinces as well as a representative of agriculture, labour, and urban and rural women, respectively. The personnel includes a scientific adviser on public health.

Subsection 1.—Public Health Activities of the Dominion Government

The Act of Parliament (8 Geo. VI, c. 22, 1944) creating the Dominion Department of National Health and Welfare, clearly defines its functions. The Department is divided into two branches. The functions of the Welfare Branch are dealt with in the chapter on Welfare Services, pp. 210–233, while those of the National Health Branch are: to maintain a maritime and aerial navigation quarantine for the purpose of excluding infectious diseases; to advise the Immigration Service regarding the health of immigrants; to provide medical care for sick and injured seamen serving on vessels paying sick mariner service dues; to supervise the health conditions of workmen engaged on public works; to set the standards and control the quality of food and drugs; to control the importation, distribution or exportation of habit-forming drugs such as morphine, cocaine, etc; to care for lepers; to promote and conserve the health of civil servants and other government employees; to furnish medical advice required in implementing pensions for the blind; to administer the Proprietory or Patent Medicine Act; to advise the Canadian Broadcasting Corporation in regard to broadcasts relating to health.

The Health Branch of the Department of National Health and Welfare is empowered by the above-mentioned Act to assist Provincial Departments of Health by conducting investigations and research into public health problems, and by co-operating with them in the preservation and improvement of the public health.

The responsibility for the care of the health of Indians and Eskimos was transferred to the Health Branch of the Department in 1945. This involves the operation of hospitals and a field medical staff across Canada and in the Arctic.

Special arrangements, made for the study of existing facilities and future requirements in the fields of medical, dental, nursing and hospital services and for the purpose of investigating various methods of providing such services, including health insurance, are continuing.

To carry on the above-mentioned activities the following Directorates and Divisions have been organized within the Health Branch:—

- *Directorate of Health Services*
  - Blindness Control
  - Child and Maternal Health
  - Civil Service Health
  - Dental Health
  - Epidemiology
  - Hospital Design
  - Industrial Health
  - Mental Health
  - Narcotics
  - Nutrition
  - Public Health Engineering
  - Quarantine, Immigration and Sick Mariner Service
  - Venereal Disease Control
  - Laboratory of Hygiene
- *Directorate of Indian Health Service*
- *Directorate of Food and Drug Divisions*
  - Inspection
  - Laboratory
  - Proprietory and Patent Medicine
- *Directorate of Health Insurance Studies*

The National Physical Fitness Program.—This program has a close association with both health and welfare. It is, however, administered under the Welfare Division and is dealt with at pp. 232-233.

Subsection 2.—Public Health Activities of the Provincial Governments

Prince Edward Island.—During the session of the Legislature in March, 1946, the Department of Public Welfare, which administered both Health and Welfare, was reorganized under the title of "Health and Welfare" with one Minister responsible for both Divisions. The Health Division is under the supervision of the Chief Health Officer, who superintends the work of the Central Division, including the Provincial Laboratory, and the Nursing and Sanitary Division. The Province is divided into five Districts: a public-health nurse is assigned to each District and is responsible for the inspection of school children, home visiting, home-nursing classes, immunizing clinics, etc. One nurse specially trained in venereal disease and another specially trained in tuberculosis have the entire Province as their field of operation. The Provincial Laboratory operated by a Laboratory Director and a competent staff, is of great assistance to the practising physicians of the Province.

The compilation of the vital statistics of the Province is handled by the Welfare Division and all births, deaths and marriage certificates are micro-filmed for the Dominion Bureau of Statistics.

The Provincial Government operates a Provincial Sanatorium of 145-bed capacity under a Board of Commissioners and an annual grant is made to assist ex-sanatorium patients when required and to help other indigent tubercular persons awaiting admission and their families. Field work, in regard to tuberculosis, is a public-health responsibility and clinics are held periodically at central points in the Province. The Prince Edward Island Tuberculosis League, a voluntary organization supported by the sale of Christmas Tuberculosis Seals, works in close co-operation with the Provincial Sanatorium and Health Division.

Provision for annual grants is made to the general hospitals which, in turn, accept as free patients all indigent persons requiring hospital treatment. Expenses in connection with the operation of a hospital for the insane are borne practically in full by the Provincial Government.

The Department of Health operates two venereal-disease clinics, one at Charlottetown and the other at Summerside; hospital beds are provided for selected cases. All necessary medication is supplied free of charge to persons who are not within reach of public-health clinics.

Nova Scotia.—The Province is divided into six health districts with a competent medical director in charge of each, assisted by a staff of public-health nurses, sanitary inspectors, clerks and stenographers. Under the direction of the central Ministry of Health, these units carry on generalized public-health programs.

The city of Halifax with a trained medical health officer and staff constitutes a separate health unit and each town and municipality has a part-time medical health officer, board of health and sanitary inspector. The Provincial Unit Officers provide leadership and endeavour to standardize and correlate the work of the municipal services.

Attached to the central office are the Minister of Health, a Deputy Minister of Health, a Medical Statistician and Epidemiologist, a Public Health Engineer, a Superintendent of Public Health Nursing, Bacteriological, Pathological and Industrial Hygiene Laboratories, a division of Physical Fitness and Nutrition, a "Kenny" treatment clinic for poliomyelitis and a staff of statistical and general clerks and stenographers. A cancer clinic is operated in connection with the Victoria General hospital, a government-owned and operated institution.

Nurses, specially trained in the epidemiology of venereal diseases, are at work and ten treatment clinics with part-time directors are in operation in the health districts.

New Brunswick.—The Department of Health, under the administration of a Minister of Health, was established in 1918. It provides the following services: general sanitation, including supervision of water supplies and sewage disposal; control of communicable diseases, including tuberculosis and venereal diseases; public-health laboratory and the supply of biologicals; medical inspection of schools; collection of vital statistics; public-health nursing and child welfare; nutrition; health education; and general supervision and co-ordination of the work of the sub-district boards of health.

Under the Minister, the Department is directed by the Chief Medical Officer, who is also Registrar General of Vital Statistics. The staff consists of an Assistant Registrar General, a Director of Laboratories, seven full-time Medical Health Officers, a full-time Director of Venereal Disease Control, a Director of Public Health Nursing Service and eleven Public Health Nurses assigned to the different counties.

The Province assumes the costs of sanatorium care for tuberculosis patients; all hospital care for poliomyelitis patients treated at the Provincial Clinic at Fredericton; and about 60 p.c. of the costs of hospital care for mental patients.

Quebec.—The Provincial Government, by legislation passed in 1946, authorized the establishment of a Department of Social Welfare and Youth. Since then, the Ministry of Health, which in reality has existed since 1936, deals only with matters relating to health, preventive medicine and public charities. From 1936 to 1941 provincial health matters were under the Department of Health which, in the former year, replaced the Health Service that operated under the Provincial Secretary. Since 1926 the system known as "County Health Units" has been in operation. The purpose of this system is to provide a regular full-time service for each county or group of two or three adjoining counties that are included in the scheme. There are now 62 units of this kind, covering 73 counties. The Health Officers of the old districts, whose number is now reduced to 7, supervise the few counties not organized into sanitary units. Many municipalities, such as Montreal, Sherbrooke, Westmount and Quebec, have their own Health Bureaus.

The Department of Health maintains, in addition to its administrative service, the following divisions: Laboratories, Sanitary Engineering, Demography, Mental Health, Public Charities, Health Districts and Units, Epidemiology, Industrial Health, Nutrition (including Maternal Hygiene and Child Welfare), Venereal Diseases, Tuberculosis, Health Education, Dental Health Education, Publicity, etc.

Service is rendered in the form of consultations, public lectures, school inspections, itinerant clinics of pediatry and tuberculosis, inquiries of all kinds, immunizations, sanitation improvement, etc. Twenty-seven anti-tuberculosis dispensaries have been established and 70 clinics of pediatry, including those sponsored by the Provincial Government.

An Act was introduced at the 1946 Session of the Quebec Legislature designed to combat the spread of tuberculosis in the Province. This Act authorized the Minister of Health to organize facilities for the detection of cases of tuberculosis and contribute to the construction and maintenance of sanatoria for consumptives and the training of specialists in the treatment of the disease as well as to carry on educational campaigns in the fight against tuberculosis. An Advisory Board was also set up to ensure the practical and efficient carrying out of the legislation.

Ontario.—The Department of Health is organized under a Minister, a Deputy Minister and an Assistant Deputy Minister. The activities of the Department include, in addition to the usual public-health functions, the operation and maintenance of Provincial Mental Hospitals.

The public-health services of the Province are organized under the following branches: the Assistant Chief Medical Officer is responsible for the co-ordination of the work of Municipal Boards of Health; the Public Health Administration Branch; Public Health Nursing; Maternal and Child Hygiene; Dental Services; and Epidemiology, concerned primarily with the control of acute communicable diseases. Separate branches are organized to deal with each of the following special health services: Venereal Disease Prevention; Tuberculosis Prevention; Industrial Hygiene; Laboratory Services; and Sanitary Engineering. Branches concerned with the supervision of certain aspects of medical treatment centres throughout the Province include: Public and Private General Hospitals; and Nurse Registration. Particular emphasis has been given in recent years to the development of a more effective form of local public-health administration through the development of County Health Units with full-time well-qualified staffs.

Mental-health services throughout the Province are organized under a Director of Hospitals, who is responsible for the administration and operation of 14 provincial mental hospitals. This Branch also organizes and operates a community mental-health service through travelling clinics and district consultant psychiatrists.

Serving all branches of the Department of Health, as required, are: the Legal Branch; the Medical Statistics Branch; and the Main Office which includes divisions responsible for accounts, pay, purchasing, central registry, library, etc.

Manitoba.—Manitoba has an organized Department of Health and Public Welfare. The Health and Public Welfare Act states that the Minister shall preside over, and have the management and direction of the Department, and the Department shall have administrative jurisdiction over all matters in the Province that relate to health and public welfare. The Department is organized into four main Divisions: General Administration; Health Services; Psychiatric Services; and Public Welfare Services.

The Division of General Administration includes the general executive offices, and the Sections of Farms Management, Statistics and Records, Accountancy, Provincial Laboratories, Health and Welfare Education, and Administrative Research.

The Division of Health Services has three Sections: (1) Environmental Sanitation, which consists of the Bureaus of Public Health Engineering, Food and Milk Control, and Industrial Hygiene. The latter Bureau was started in 1943 to take care of the many hazards now appearing in industries, particularly those that have to do with the personnel employed by industry. (2) Preventive Medical Services, which consists of the Bureaus of: Disease Control, responsible for the control of acute communicable disease, venereal diseases and tuberculosis; Maternal and Child Hygiene, responsible for an educational program in maternal health, infant health, pre-school health, and school health; Public Health Nursing, responsible for nursing education, field supervision, licensing and control of practical nurses, registry for crippled children, and general administration of all public-health nursing services. (3) The Extension Health Services Section administers the provisions of the Health Services Act, and consists of the Bureaus of: Local Health Services, responsible for the establishment, supervision, and general administration of local health units throughout the Province, the control of local part-time medical officers of health, consultative services to local and municipal health departments in Manitoba; Diagnostic Services, responsible for the establishment and general administration of diagnostic units set up in general hospitals in Manitoba; Medical Care, responsible for the approval of contracts for pre-payment medical care between a municipality, or municipalities, and the contracting physician, and for the payment of government grants to the municipalities in aid of such service under conditions specified in Part III of the Act; Hospitalization, responsible for the organization and supervision of the establishment of hospital districts, medical-nursing units, and hospital areas under the provisions of Part IV of the Act together with the supervision of hospitals throughout the Province and the payment of Provincial Government grants to them as provided under the Hospitals Aid Act; and the Bureaus of Dental Services, Physical Fitness and Nutrition Research.

The Division of Psychiatric Services consists of the Bureaus of: Mental Institutions, responsible for the supervision and control of the four institutions—the Psychopathic Hospital, Winnipeg, the Hospitals for Mental Diseases at Selkirk and Brandon, and the Manitoba School for Mentally Defective Persons at Portage la Prairie; and Community Mental Health Services, responsible for out-patient services, child-guidance clinics, services to courts and child-caring agencies, boarding-home care for the mentally ill, and teaching facilities.

Saskatchewan.—The Department of Public Health has been organized since 1923 under a Minister and a Deputy Minister and consists of 15 Divisions: (1) The Division of Administration co-ordinates the activities of the Department as a whole. (2) The Division of Public Health Nursing conducts a generalized program which includes all phases of public-health nursing, infant and maternal welfare, school work, venereal disease epidemiology, etc. This Division also supervises maternity grants and nursing homes. (3) The Division of Communicable Diseases administers provisions of the Public Health Act relating to control of communicable diseases and regulations relating thereto. It distributes free vaccines and sera to doctors and hospitals and supervises anterior poliomyelitis clinics, boards of health, medical health officers, medical examination of food handlers, burial, disinterment and transportation of the dead and promotes immunization programs. (4) The Division of Sanitation has supervision of water-works, sewerage systems and drainage; food supplies including milk; urban and rural sanitation. (5) The Division of Laboratories does routine public-health work in bacteriology, serology, chemistry and pathology and provides clinical diagnostic laboratory service for rural physicians. (6) The Division of Vital Statistics administers the Vital Statistics Act and the Marriage Act. (7) The Division of Mental Services administers the Mental Hygiene Act. Its duties include: the care and treatment of patients in institutions for the mentally ill and mental defectives, and in the psychopathic ward in Regina; and the supervision of mental hygiene clinics in connection with the preventive work of mental hygiene. (8) The Division of Venereal Disease Control administers a program for the control of venereal disease, which is divided into the following functional sections: diagnostic and treatment services; epidemiology; and education. (9) The Division of Health Education conducts a wide program of education for the purpose of modifying public opinion and attitudes in favour of higher standards of personal and community health. (10) The Division of Nutrition is largely educational in function, creating interest in better food habits; emphasis is placed on nutrition of children with special attention to school lunches. (11) The Division of Medical Services supervises payment of grants to physicians, dentists and approved hospitals for adequate medical services to needy residents in any part of the Province outside municipal jurisdiction; insulin is supplied free to diabetics who are unable to purchase it; medical, hospital and drug services are provided to old age and blind pensioners and their dependents, and to recipients of mothers' allowances and their children. (12) The Division of Physical Fitness and Recreation stimulates, organizes and assists social, cultural and athletic activities. (13) The Division of Industrial Hygiene provides a consulting service for management, labour and governmental agencies on matters pertaining to industrial health. (14) The Division of Air Ambulance Service, by means of two specially equipped Norseman craft, staffed by pilots, nurses and engineers, provides emergency service at a nominal charge of $25 per flight. (15) The Division of Dental Hygiene became operative on Jan. 1, 1947.

Health Regions.—The Province has been divided into 14 proposed health regions, five of which have been established: Swift Current No. 1; Weyburn-Estevan No. 3; Assiniboia No. 2; Moose Jaw No. 6; Meadow Lake No. 14.

Health Services Planning Commission.—The Commission, appointed under authority of the Health Services Act, 1946, is concerned with improving the standards of medical care throughout the Province. All hospital planning and administration, and all approved hospitals come under its supervision. The Commission acts as an advisory and consultative body to local regions, municipalities, local improvement districts, mutual benefit and hospital associations, and Union hospitals and is responsible for the administration of medical care grants: it assesses hospital facilities and advises on needed hospital expansion. It must approve bylaws and contracts for all types of municipal health schemes.

The Saskatchewan Hospitalization Act, 1946.—The Saskatchewan Hospital Services Plan, administered by the Health Services Planning Commission, went into effect Jan. 1, 1947. It provides for hospital care on a public-ward basis for every resident of the Province. An annual tax of $5 per person with a family maximum of $30 provides a fund out of which the hospital bills are paid.

Cancer Commission.—This Commission, created in 1930, has established consultative, diagnostic, surgery and treatment clinics for cancer at Regina and Saskatoon. Radon is manufactured at a plant in Saskatoon.

Poliomyelitis.—Free treatment of cases is available at Saskatoon and Regina.

Tuberculosis.—Free diagnostic and treatment services are available in three sanatoria and a number of clinics operated by the Saskatchewan Anti-Tuberculosis League. These are financed by government grants and per capita charges on municipalities. Annual surveys are carried out throughout the Province financed by voluntary subscription.

Alberta.—The Department of Public Health administers all public-health matters in the Province and includes the following Divisions: Communicable Diseases; Sanitary Engineering and Sanitation; Public Health Education; Public Health Entomology; Laboratory; Tuberculosis Control; Public Health Nursing; Municipal Hospitals; Hospital Inspection; Social Hygiene; Vital Statistics; Mental Hygiene; Dental Hygiene; Entomology; and Cancer.

The following institutions are administered by the Department: Central Alberta Sanatorium; the Provincial Mental Hospital, Ponoka; the Provincial Training School, Red Deer; the Provincial Auxiliary Hospital, Claresholm; the Provincial Auxiliary Hospital, Raymond; the Provincial Mental Institute, Edmonton.

Free clinics for venereal disease are maintained at the following centres: Edmonton, Calgary, Medicine Hat, Lethbridge, Peace River, High Prairie, McLennan, and in the two provincial gaols. Arsenicals, penicillin and sulpha drugs are provided free of charge to all private physicians treating venereal disease. Educational work on social hygiene is carried on by means of lectures, moving pictures, bulletins and radio talks.

Free treatment for infectious types of tuberculosis is provided for any person who has resided in the Province for at least one year immediately preceding admission for treatment in the sanatorium. In addition to this service, two mobile X-ray clinics are in operation; the personnel is supplied and the clinics are maintained by the Provincial Department of Public Health while the equipment is furnished by the Alberta Tuberculosis Association.

Under the authority of the Poliomyelitis Sufferers Act, 1938, provision is made for the free treatment in special hospitals of patients suffering from this disease. Provision is also made for academic instruction, vocational training, and rehabilitation of those suffering from paralysis resulting from this disease.

The Department of Public Health has inaugurated a cancer service in the Province. Diagnostic cancer clinics have been established at Edmonton and Calgary and are conducted weekly. Patients found to require deep X-ray or radium therapy or surgery are treated free of charge. Hospitalization may be authorized by the cancer clinic up to a maximum of 14 days.

An Act to provide free hospitalization for maternity patients came into force on Apr. 1, 1944. Any woman: (*a*) who has been a resident of the Province for 12 consecutive months out of the 24 months immediately preceding her admission to hospital as a patient; (*b*) who by reason of circumstances arising out of the War—wives of men in the Armed Services—is entitled to free hospitalization for herself and child for a maximum period of 12 days.

Alberta's Rural Health Districts, of which there are now 18, have been operating successfully since 1931. In sparsely populated, outlying areas, 36 Provincial District Nurses provide a diversified medical and public-health service.

Under an amendment to the Solemnization of Marriage Act, which went into effect July 1, 1945, each party to a marriage contract is required to have a specimen of blood taken by a qualified physician and forwarded to the Provincial Laboratory or other approved laboratory for serological examination. All positive serologic tests must be reported to the Director of the Division of Social Hygiene. Certain outlying areas in which medical service is not available may be exempted from these requirements.

Municipal Hospitals.—Under the Municipal Hospitals Act passed by the Alberta Legislature in 1917, there are 47 hospitals now operating, with 6 new hospitals being built this year and 7 additional Districts contemplating coming under the Act.

During 1945, there were 38 municipal hospitals in operation, with a total bed capacity of 1,289. Total number of patients admitted was 32,190 and the total hospital days 275,270; 3,877 maternity patients were admitted and 3,952 babies were born in municipal hospitals during the year. Major operations performed numbered 2,782, minor operations 6,484, and 13,433 medical cases were treated. The average patient day cost of operation was $4·43 and the average revenue per patient day was $4·51. The number of graduate nurses employed was 221. The approximate population served by these hospitals was 237,788, covering an area of 27,272 sq. miles.

British Columbia.—The Department of Health and Welfare of British Columbia is organized into two branches with a Deputy Minister of Health and a Deputy Minister of Welfare. The Deputy Minister of Health, who is also Provincial Health Officer, is in charge of the technical details of the Health Services.

The Provincial Health Services are divided into two Bureaus—the Bureau of Administration and the Bureau of Local Health Services—and six Divisions.

The Bureau of Local Health Services is a part of the central office of the Health Services and is under the direct supervision of the Deputy Provincial Health Officer. In addition to correlating the services of the various Divisions, it is responsible for technical supervision of all local health services. Such public-health specialities as maternal and child welfare, communicable-disease control, public-health dentistry, public-health nursing and some phases of industrial hygiene are all part of the responsibilities of this Bureau. Included in this Bureau is the Director of Public Health Nursing who supervises the public-health nursing program, with the aid of a travelling consultant.

A nutrition consultant service has been established as part of the Bureau of Local Health Services. Special assistance is provided to the field staff in problems relating to nutrition.

Different types of local health services have been developed in the Province. These include large city health departments such as the Vancouver Metropolitan Health Committee and the Victoria City Health Department, Health Units, Public Health Nursing Services, and certain practising physicians who act as part-time Medical Health Officers and School Health Inspectors.

A Health Unit consists of a full-time Medical Director who is a physician trained in public health, a number of public-health nurses determined by the population served, one or two trained sanitarians, and a statistical clerk.

The entire Province has been divided into Health Unit Areas. Six of these units are now in operation and it is expected that the remainder will be in operation within a few years. As of Jan. 1, 1947, the administration of all Rural Health Units has been reorganized to provide a more unified administrative system. All public-health field staff are now employed directly by the Provincial Government.

The Division of Public Health Engineering is responsible for all matters of environmental sanitation, including water supplies, sewage disposal, food and milk control, swimming pools, the supervision of the sanitation in lumber, mining, construction and cannery camps, certain phases of garbage disposal, shellfish supervision, and housing.

The Division of Vital Statistics is responsible for the registration of all births, deaths and marriages in the Province, including adoptions and divorces.

The Assistant Provincial Health Officer is in charge of special preventive and treatment services, which include correlation of the work of three special Divisions—Tuberculosis, Venereal Disease, and Laboratory—with that of Local Health Services.

The Division of Tuberculosis Control is responsible for the diagnosis and treatment of tuberculosis in the Province. This Division operates two tuberculosis hospitals—one at Tranquille and another adjacent to the Vancouver General

Hospital at Vancouver. Three other hospital services are operated by the Division in conjunction with the Royal Jubilee Hospital and St. Joseph's Hospital at Victoria and St. Joseph's Oriental Hospital at Vancouver.

Tuberculosis diagnostic clinics are provided in the form of stationary clinics at the larger centres and four travelling clinics. In addition, two Survey Chest Clinic Units provide free X-ray service to the larger centres and to all industries. Out-patient treatment and pneumo-thorax refills are made available by the Division at all the stationary clinics and at strategic points utilizing pneumo-thorax equipment provided by the Division. Consultative and advisory service is furnished to local Health Departments, physicians and hospitals.

The Division of Laboratories, in addition to operating the large main laboratory at Vancouver, buys branch laboratory public-health service from hospitals at Victoria, Nanaimo, Prince Rupert, Kamloops, Nelson and Kelowna. Laboratory service and biological products are provided free to all physicians and Health Officers.

The Division of Venereal Disease Control operates diagnostic and treatment clinics at Vancouver, Victoria, Trail, Oakalla Gaol, New Westminster, and the Peace River area in co-operation with the Local Health Units. Physicians are paid for venereal disease treatment of indigents where no clinic service is available. Free drugs, consultative and advisory service, including public-health education, are made available throughout the Province.

The Division of Public Health Education is responsible for correlation of the health-education programs of all Divisions, as well as the provision of materials such as bulletins, pamphlets, and films. A consultative service to local health services is provided on problems of public-health education in the field.

Section 2.—Institutional Statistics*

Under authority granted by the Dominion Government in 1930, the Dominion Bureau of Statistics has, since that date, co-operated with the provincial authorities through the Census of Institutions, and now collects, on a Dominion-wide basis, statistics for the following types of institutions: (1) *Hospitals*—institutions primarily engaged in the prevention and cure of physical sickness and disease, such as hospitals for the sick, sanatoria, and institutions for incurables and those under the heading "Dominion" in Table 1. (2) *Mental and neurological institutions*—such as asylums for the insane, institutions for the feeble-minded, epileptic, etc., devoted to the treatment and care of mental ailments. (3) *Charitable and benevolent institutions*—caring for the poor and the destitute of all ages, such as homes for the aged, county refuges, orphanages, etc. Statistics of penal and corrective institutions are also collected through the Census of Institution; they are dealt with under crime and delinquency at p. 276. The latest statistics available regarding charitable institutions appear at pp. 677-682 of the 1943-44 Year Book.

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* Revised under the direction of J. T. Marshall, Director, Vital Statistics Division, Dominion Bureau of Statistics, by J. C. Brady, Chief, Institutions Statistics.

1.—Hospitals Operating in Canada, by Provinces, 1945

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (1945 estimate, 000's omitted)	92	621	468	3,561	4,004	736	845	826	949	17	12,119
Public Hospitals for Acute Diseases—[1]											
General	4	28	15	63	113	37	78	84	70	6	498
Women's	Nil	2	1	3	3	Nil	Nil	1	1	Nil	11
Children's	"	1	Nil	2	1	1	1	1	2	"	9
Contagious diseases	"	1	"	4	3	1	Nil	3	Nil	"	12
Convalescent	"	Nil	"	4	5	1	"	Nil	"	"	10
Red Cross	"	1	1	Nil	26	Nil	8	"	3	"	39
Other	"	Nil	Nil	7	1	"	Nil	1	Nil	"	9
Totals, Public Hospitals	4	33	17	83	152	40	87	90	76	6	588
Private hospitals	1	12	5	44	44	6	68	19	34	1	234
Institutions for incurables	Nil	Nil	1	4	9	1	2	2	1	Nil	20
Dominion Hospitals—											
Department of National Health and Welfare—											
Quarantine	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	2
Marine	"	2	"	"	"	"	"	"	Nil	"	2
Leper	"	Nil	1	"	"	"	"	"	1	"	2
Indian Health Service	"	"	Nil	"	3	5	1	5	1	1	16
Department of Veterans Affairs	"	3	1	3	9	3	1	4	2	Nil	26
Department of National Defence	"	8	7	12	29	5	5	8	13	"	89[2]
Totals, Dominion Hospitals	Nil	14	9	15	41	13	7	17	18	1	137[2]
Tuberculosis sanatoria	1	3	3	14	14	5	4	4	5	Nil	53
Units in other hospitals[3]	*Nil*	*7*	*Nil*	*17*	*1*	*4*	*Nil*	*1*	*2*	"	*32*
Mental Institutions—											
Provincial hospitals	1	1	1	6	13	2	2	4	3	Nil	33
Training schools	Nil	1	Nil	Nil	1	1	Nil	1	Nil	"	4
Psychiatric hospitals	"	Nil	"	"	1	1	"	Nil	"	"	2
County and municipal hospitals	"	15	"	"	Nil	Nil	"	"	"	"	15
Dominion hospitals	"	Nil	"	1	1	"	"	"	"	"	2
Private institutions	"	"	"	1	1	"	"	"	1	"	3
Totals, Mental Institutions	1	17	1	8	17	4	2	5	4	Nil	59
Totals, All Hospitals	**7**	**79**	**36**	**168**	**277**	**69**	**170**	**137**	**138**	**8**	**1,091**[2]

[1] Excluding incurable, mental and tuberculosis institutions.

[2] Includes two hospitals in Newfoundland.

[3] Not included in totals.

Subsection 1.—Statistics of Hospitals, Other Than Mental*

Table 2 gives summary statistics of reporting public and private hospitals.

2.—Summary Statistics of Reporting Public and Private Hospitals, 1941-45

Note.—Figures include hospitals and homes for incurables, but do not include Dominion, mental, or tuberculosis hospitals.

Item	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
Public Hospitals—					
Units reporting	612	618	611	586	588
Bed capacities[1]	59,733	60,205	61,070	59,010	59,324
Patients under treatment[2]	1,057,553	1,115,666	1,204,170	1,269,427	1,351,955
Total collective days' stay[2]	14,215,921	14,638,647	15,562,644	14,975,802	15,706,159
Private Hospitals—					
Units reporting	322	287	264	267	234
Bed capacities[1]	4,733	4,475	4,251	4,579	4,083
Patients under treatment[2]	47,361	48,225	52,045	53,224	50,977
Total collective days' stay[2]	789,468	811,156	857,332	905,614	929,991

[1] Includes beds, cribs and bassinets. [2] Includes newborn.

Table 3 gives statistics on a provincial basis for all public hospitals reporting to the Dominion Bureau of Statistics. Available facilities, the staff and the movement of populations are shown for the year 1945. For Canada as a whole, 588 such hospitals reported for that year. Of these, 498 were general public hospitals and 90 were other public hospitals. A total of 492 of the reporting hospitals were equipped with X-ray facilities, 309 reported clinical laboratories and 266 had physio-therapy facilities.

During the year the total patients under treatment reached 1,351,955 persons: there were 1,143,554 admissions and 1,272,455 discharges. Live births numbered 171,407 and deaths 39,804. Total collective days' stay amounted to 15,706,159. Total receipts for the year amounted to $74,696,393 and expenditures $74,059,491. The average cost for the entire Dominion per patient day was $4·45.

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* A complete list of all hospitals in Canada, giving name, location, type and bed accommodation for 1945, is published by the Dominion Bureau of Statistics, Ottawa, Price 25 cents.

3.—Summary Statistics of Reporting Public Hospitals, by Provinces, 1945

Note.—Figures do not include hospitals and homes for incurables, tuberculosis sanatoria, mental institutions, private or Dominion hospitals.

Item	Yukon and N.W.T.[1]	Prince Edward Island	Nova Scotia		New Brunswick	
			General	All Other[2],[3]	General	All Other[2]
	No.	No.	No.	No.	No.	No.
Hospitals reporting	6	4	28	5	15	2
Approved schools of nursing	Nil	3	13	2	13	Nil
Staff—						
Salaried doctors, full-time	1	2	3	Nil	9	"
Interns	Nil	1	23	5	13	"
Graduate nurses	16	25	384	42	202	10
Student nurses	Nil	96	555	49	417	Nil
Totals, Personnel	**66**	**224**	**2,058**	**224**	**1,420**	**19**
Hospital Facilities—						
X-ray	4	4	27	1	14	1
Clinical laboratories	2	3	22	2	13	Nil
Physio-therapy	Nil	2	12	1	10	"

For footnotes, see end of table, p. 199.

3.—Summary Statistics of Reporting Public Hospitals, by Provinces, 1945—continued

Item	Yukon and N.W.T.[1]	Prince Edward Island	Nova Scotia		New Brunswick	
			General	All Other[2,3]	General	All Other[2]
	No.	No.	No.	No.	No.	No.
Movement of Population—						
Admissions	1,075	7,602	54,140	4,592	39,910	561
Live births	70	843	9,500	2,013	5,682	385
Totals, Under Treatment	**1,241**	**8,646**	**65,528**	**6,715**	**46,683**	**968**
Discharges	1,083	8,245	62,080	6,362	44,112	928
Deaths	55	207	1,616	172	1,189	10
Total collective days' stay	36,248	68,697	669,838	69,221	501,308	15,007
Finances—						
Hospitals reporting	Nil	3	27	3	15	2
	$	$	$	$	$	$
RECEIPTS—						
Net earnings from patients	[4]	213,470	2,283,105	141,481	1,864,985	22,479
Provincial and municipal grants	[4]	15,000	354,086	34,322	173,028	388
Other sources	[4]	39,086	268,941	22,499	150,546	7,227
Total Receipts	–	**267,556**	**2,906,132**	**198,302**	**2,188,559**	**30,094**
EXPENDITURES—						
Salaries and wages	[4]	73,755	1,133,224	85,503	787,581	11,346
Supplies	[4]	121,506	1,258,105	117,663	919,293	13,183
All other expenditures	[4]	56,069	581,863	41,465	465,856	7,867
Total Expenditures	–	**251,330**	**2,973,192**	**244,631**	**2,172,730**	**32,396**
Cost per patient day	–	3·66	3·94	3·76	4·00	2·69

Item	Quebec		Ontario		Manitoba	
	General[1]	All Other[2]	General[1]	All Other[2]	General	All Other[2]
	No.	No.	No.	No.	No.	No.
Hospitals reporting	63	20	113	39	37	3
Approved schools of nursing	30	6	55	4	10	1
Staff—						
Salaried doctors, full-time	129	54	67	10	29	4
Interns	363	50	222	44	72	8
Graduate nurses	1,673	342	2,812	330	470	58
Student nurses	2,039	219	3,435	197	659	25
Totals, Personnel	**10,730**	**1,865**	**14,848**	**1,747**	**2,909**	**307**
Hospital Facilities—						
X-ray	58	10	98	20	34	2
Clinical laboratories	47	10	69	5	24	1
Physio-therapy	51	9	83	5	16	2
Movement of Population—						
Admissions	214,094	18,659	347,365	32,537	76,326	4,477
Live births	27,202	4,177	53,003	6,753	12,984	Nil
Totals, Under Treatment	**247,721**	**25,123**	**412,110**	**40,366**	**91,504**	**4,715**
Discharges	232,945	22,092	385,452	38,510	86,765	4,408
Deaths	7,670	820	13,973	759	2,487	112
Total collective days' stay	3,120,920	849,383	4,672,426	474,870	939,298	77,474
Finances—						
Hospitals reporting	56	14	111	10	37	3
	$	$	$	$	$	$
RECEIPTS—						
Net earnings from patients	11,639,182	1,035,931	17,820,637	1,000,648	2,969,104	177,711
Provincial and municipal grants	2,409,192	1,073,146	3,413,227	410,315	640,627	314,289
Other sources	2,860,615	277,686	1,242,456	227,066	221,569	54,448
Total Receipts	**16,908,989**	**2,386,763**	**22,476,320**	**1,638,029**	**3,831,300**	**546,448**
EXPENDITURES—						
Salaries and wages	7,142,393	1,174,564	10,848,539	898,917	1,812,182	293,448
Supplies	5,510,550	855,351	8,393,248	595,074	1,423,401	140,501
All other expenditures	3,571,975	548,221	3,271,631	186,269	611,450	115,522
Total Expenditures	**16,224,918**	**2,578,136**	**22,513,418**	**1,680,260**	**3,847,033**	**549,471**
Cost per patient day	4·62	3·55	4·50	4·51	3·98	3·54

For footnotes, see end of table, p. 199.

3.—Summary Statistics of Reporting Public Hospitals, by Provinces, 1945—concluded

Item	Saskatchewan		Alberta		British Columbia	
	General[1]	All Other[2]	General[1]	All Other[2,5]	General	All Other[2]
	No.	No.	No.	No.	No.	No.
Hospitals reporting	78	9	84	6	70	6
Approved schools of nursing	10	Nil	10	[4]	7	Nil
Staff—						
Salaried doctors, full-time	5	"	18	[4]	41	"
Interns	19	"	21	[4]	47	"
Graduate nurses	615	18	778	27	1,352	48
Student nurses	795	Nil	731	[4]	888	Nil
Totals, Personnel	**3,281**	**40**	**4,008**	**57**	**5,192**	**171**
Hospital Facilities—						
X-ray	69	Nil	78	[4]	69	3
Clinical laboratories	36	"	38	2	34	1
Physio-therapy	35	"	25	[4]	13	2
Movement of Population—						
Admissions	101,774	1,347	118,369	907	118,124	1,695
Live births	13,640	317	16,839	583	16,256	1,160
Totals, Under Treatment	**117,951**	**1,714**	**138,133**	**1,636**	**138,189**	**3,012**
Discharges	112,046	1,642	131,612	1,469	129,848	2,856
Deaths	3,015	30	3,171	16	4,475	27
Total collective days' stay	1,167,160	21,656	1,355,066	41,405	1,565,436	60,746
Finances—						
Hospitals reporting	72	Nil	84	3	70	6
	$	$	$	$	$	$
RECEIPTS—						
Net earnings from patients	3,985,969	[4]	4,508,751	25,178	6,090,299	120,717
Provincial and municipal grants	662,709	[4]	1,559,140	54,762	2,033,588	54,292
Other sources	242,215	[4]	429,028	26,168	1,302,954	222,131
Total Receipts	**4,890,893**	–	**6,496,919**	**106,108**	**9,426,841**	**397,140**
EXPENDITURES—						
Salaries and wages	2,186,900	[4]	2,951,458	66,010	4,914,298	158,970
Supplies	1,790,811	[4]	2,417,917	39,754	2,587,558	74,755
All other expenditures	804,614	[4]	1,557,705	23,659	1,357,381	60,186
Total Expenditures	**4,782,325**	–	**6,927,080**	**129,423**	**8,859,237**	**293,911**
Cost per patient day	4·00	–	4·87	3·53	5·14	4·62

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[1] The following general hospitals did not report: Quebec, 3; Ontario, 1; Saskatchewan, 1; Alberta, 3; Yukon and the Northwest Territories, 5.

[2] These institutions are classified in detail in Table 1.

[3] Two Red Cross hospitals in Nova Scotia did not report.

[4] Not available.

[5] One contagious-diseases hospital in Alberta did not report.

Organized Services in Public General Hospitals.—Organized services, which are analysed in Table 4, may be defined as specialized hospital departments or services in charge of specialists with up-to-date equipment and a technical staff specially devoted to problems in the indicated fields. Facilities available in a hospital merely for the use of general practitioners are not considered as organized services. Organized services in public general hospitals only are considered here but it is in these hospitals that the majority of such services are found. Many of the smaller public general hospitals have facilities for study and treatment in the fields indicated here, but since they are not organized services as defined above, such facilities are not included in the figures. In 1945, of the 498 public general hospitals, 235 had organized medical staffs with 7,949 staff doctors.

4.—Organized Services and Staffs in Public General Hospitals, by Provinces, 1945

Note.—A dash in this table means that an organized service was not reported in the case so indicated.

Service and Staff	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals
Service										
General medicine	3	10	13	56	47	10	18	18	13	188
Pædiatrics	2	3	11	41	38	7	7	15	9	133
Cardiology	1	2	4	29	2	6	4	4	6	58
Dermatology	–	1	1	27	17	4	4	2	4	60
Neuro-psychiatry	–	2	1	8	11	2	1	2	3	30
Tuberculosis	–	7	–	14	2	1	3	3	4	34
Venerology	–	2	–	27	17	3	3	4	3	59
Contagious diseases	–	4	4	12	12	6	8	4	7	57
General surgery	3	10	13	54	46	10	17	19	12	184
Orthopædics	–	3	3	32	33	6	6	5	6	94
Neurology	–	–	–	12	12	3	2	4	4	37
Dentistry	–	4	1	28	–	5	1	2	3	44
Obstetrics	3	9	12	48	52	9	16	18	12	179
Gynæcology	2	7	5	40	42	8	8	7	7	126
Ophthalmology	1	5	4	39	32	6	5	3	7	102
Oto-laryngology	1	4	5	37	34	6	6	2	7	102
Urology	2	5	5	30	32	6	7	6	8	101
Pathology	1	3	5	38	36	9	5	7	8	112
Bacteriology	2	6	11	44	42	10	7	11	10	143
X-ray	3	10	13	53	42	10	14	16	12	173
Deep X-ray	1	5	4	22	2	2	5	3	6	50
Radium	2	3	1	12	17	–	3	4	4	46
Clinical laboratory	1	5	11	41	46	9	7	16	11	147
Physio-therapy	1	6	6	42	44	8	7	7	9	130
Staff										
Organized medical staffs	3	19	15	49	78	11	21	18	21	235
Staff doctors	45	377	279	1,999	3,070	392	389	633	765	7,949

Out-Patient Departments.—Out-patient departments are operated in connection with hospitals or other institutions, and treat patients who do not occupy beds in the hospital. The extension of out-patient services to patients of modest means has far-reaching and beneficial effects. It may replace admission to hospital, or may serve to secure necessary and beneficial hospitalization. As a general rule out-patient departments are subsidized from the funds of the general hospital and separate records are not kept. Until a uniform system of accounting is adopted, it will not be possible to give the average cost per patient.

5.—Out-Patient Departments of Public Hospitals, by Provinces, 1945

Note.—Figures of tuberculosis sanatoria and government and municipal clinics held in hospitals are not included.

Province	Out-patient Departments	Patients	Treatments
New Brunswick	2	21,099	31,022
Quebec	29	426,438	913,297
Ontario	19	316,727	448,132
Manitoba	4	32,965	93,412
Alberta	3	2,432	8,519
British Columbia	2	9,733	25,265
Totals	**59**	**809,394**	**1,519,647**

Tuberculosis Institutions.—The statistics regarding institutions for the treatment of tuberculosis shown in Table 6, include special units for the treatment of tuberculosis in general hospitals and Dominion hospitals as well as the specialized sanatoria shown separately in Table 1. The deaths in these institutions from tuberculosis in 1945 were 39·1 p.c. of the total deaths from the disease in Canada as shown under Vital Statistics at p. 166 of this edition. However, the death rate from this disease has shown an encouraging decline since 1926.

6.—Summary Statistics of Tuberculosis Hospitals, by Provinces, 1945

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Hospitals—										
Sanatoria	1	3	3	14	14	5	4	4	5	53
Units of public hospitals	Nil	7	Nil	16	Nil	Nil	Nil	Nil	1	24
Units of Dominion hospitals	"	Nil	"	1	1	4	"	1	1	8
Totals, Hospitals	**1**	**10**	**3**	**31**	**15**	**9**	**4**	**5**	**7**	85
Bed Capacity—										
Sanatoria	140	473	548	2,520	3,905	825	851	432	704	10,398
Units of public hospitals	Nil	222	Nil	1,010	Nil	Nil	Nil	Nil	22[1]	1,254
Units of Dominion hospitals	"	Nil	"	130	21	117	"	12	173	453
Totals, Bed Capacity	**140**	**695**	**548**	**3,660**	**3,926**	**942**	**851**	**444**	**899**	**12,105**
Staff—[2]										
Salaried doctors	3	6	11	83	67	10	17	3	22	222
Graduate nurses	13	25	59	128	339	27	48	25	107	771
Totals, Personnel[3]	**72**	**237**	**306**	**1,147**	**1,833**	**312**	**411**	**120**	**504**	**4,942**
Hospital Facilities—[2]										
X-ray	1	2	3	13	13	3	3	1	1	40
Clinical laboratories	1	1	2	13	13	3	3	1	1	38
Physio-therapy	Nil	1	3	9	6	2	3	Nil	1	25
Movement of Population—										
Admissions	59	711	500	4,959	3,298	1,439	912	405	970	13,253
Totals, Under Treatment	**138**	**1,311**	**1,035**	**8,321**	**6,476**	**2,104**	**1,658**	**793**	**1,722**	**23,558**
Discharges	50	716	520	4,978	3,157	1,281	883	407	905	12,897
Deaths	11	132	89	812	591	171	103	68	200	2,177
Total collective days' stay	30,071	226,500	190,726	1,229,747	1,203,774	273,263	295,981	143,878	291,677	3,885,617

[1] Four units of public hospitals at Vancouver and Victoria are operated by the Provincial Board of Health and are included in Sanatoria. [2] Sanatoria only (exclusive of units in other hospitals). [3] Includes other personnel.

Subsection 2.—Statistics of Dominion Government Hospitals

Dominion Government Hospitals.—Hospitals operated by the Dominion Government are conducted for special purposes connected with departmental administration such as the care of war veterans and members of the Permanent Force, the quarantine and care of immigrants and lepers, the care of Indians as wards of the Government, etc.

Table 1 shows the number of Dominion hospitals compared with those in other categories for 1945. Table 7 gives the hospital accommodation as at Dec. 31, 1946, in hospitals administered by the Department of Veterans Affairs, including pavilions erected at the expense of that Department as additions to civilian hospitals and in which a definite number of beds are reserved for the treatment of Departmental patients. Tables 8 and 9 record the treatment activity in these institutions for the calendar year 1946.

In the present edition of the Year Book statistics of the hospitals administered by this Department, only, are presented in detail, but an endeavor will be made to compile tables covering the other Departments and link up with the series given in the 1939 Year Book, pp. 1041-43. During the intervening years, many changes and transfers of jurisdiction have taken place.

Hospitals Under the Department of Veterans Affairs.—During the calendar year 1946 accommodation in hospitals operated by the Department of Veterans Affairs was increased by the taking over of 15 former Service hospitals with a normal capacity of 4,315 beds. In addition, new construction and alterations, which had been delayed by shortages of materials and other factors, provided extra wings to Departmental hospitals, as well as an active convalescent hospital and Veterans Homes. The first wing of the 1,550-bed Sunnybrook Hospital near Toronto was taken into use. As the patient load declines commencing in the spring of 1947 and as new construction is completed, former Service hospitals will be released. New construction is expected to provide an additional 1,675 beds within six months and another 1,700 beds within twelve months, while an additional 600 beds will be available at a later date.

7.—Hospital Accommodation in Departmental Institutions, by Districts and Provinces, as at Dec. 31, 1946

District and Province	Hospitals	Normal Capacity	Actual Beds Set Up	Beds Occupied Dec. 31, 1946
	No.	No.	No.	No.
District—				
Montreal	5	2,302	2,372	1,919
Halifax	4	1,178	1,108	616
Ottawa	3	685	629	417
Toronto	8	2,802	2,529	1,839
Quebec	2	512	496	431
London	3	2,024	2,064	1,333
Winnipeg	4	1,613	1,719	861
Regina	2	236	224	198
Calgary	3	506	511	426
Vancouver	3	1,984	1,453	1,092
Saint John	3	653	581	456
Hamilton	1	200	175	132
Edmonton	2	433	400	304
Saskatoon	1	150	162	140
Kingston	2	445	568	243
Totals	**46**	**15,723**	**14,991**	**10,407**
Province—				
Nova Scotia	4	1,178	1,108	616
New Brunswick	3	653	581	456
Quebec	7	2,814	2,868	2,350
Ontario	17	6,156	5,965	3,964
Manitoba	4	1,613	1,719	861
Saskatchewan	3	386	386	338
Alberta	5	939	911	730
British Columbia	3	1,984	1,453	1,092

The four main types of treatment institutions operated by the Department of Veterans Affairs are as follows, the number in brackets representing the number of each in operation at Dec. 31, 1946: (*a*) Active Treatment (23); (*b*) Active Convalescence (6); (*c*) Special Treatment Centres (10); (*d*) Veterans Homes (7). Active Treatment hospitals provide treatment for general, medical and surgical conditions, and the larger ones for such special conditions as arthritis and those involving orthopædic surgery, plastic surgery, neuro-surgery, neuro-psychiatry, etc. Active Convalescence institutions are ordinarily referred to as Health and Occupational Centres and provide physical and occupational therapy and physical re-training to convalescent patients. Special Treatment Centres are chiefly tuberculosis sanatoria; a hospital for the care of paraplegics and one for neuroses are also included under this heading. Veterans Homes provide domiciliary care for veterans who require it.

The large number of veterans requiring treatment severely taxed all Departmental treatment resources throughout the calendar year 1946. Eligibility for treatment is disappearing in a large number of cases and it is anticipated that the maximum patient load will have been passed in the late spring of 1947. The movement of hospital population for the calendar year 1946 is shown in Table **8** and Table **9** records the main types of treatment provided and classifies the recipients.

8.—Movement of Population in Departmental Hospitals and Number of Clinical Treatments, by Months, 1946

Month	Movement of Population				Clinical Treatments
	Admissions for Month	Discharges for Month	Deaths	Patient Strength at Close of Month[1]	
	No.	No.	No.	No.	No.
January	4,798	3,084	90	7,721	85,759
February	4,216	1,492	37	10,192	102,068
March	5,737	5,520	111	8,366	90,887
April	6,505	4,495	98	9,979	62,165
May	5,029	3,109	66	10,900	88,769
June	5,530	3,975	68	11,150	109,333
July	5,901	3,877	95	11,452	80,223
August	5,058	4,111	104	12,142	107,611
September	8,134	6,095	115	12,671	92,781
October	7,621	6,772	97	11,382	90,247
November	6,833	5,445	79	11,297	112,151
December	6,285	5,611	79	10,407	71,011
Totals	**71,647**	**53,586**	**1,039**	–	**1,093,005**

[1] The lack of balance between months is caused by transfers between Departmental and contract hospitals.

9.—Patients in Departmental Hospitals, Classified According to Veteran Status and Treatment Groups, by Months, 1946

Month	Total of Patients at Close of Month	Veteran Status			Treatment Groups		
		Veteran of War of 1914-18	Veteran of War of 1939-45	Other Persons	General Treatment	T.B. Treatment	Mental Treatment
	No.	No.	No.	No.	No.	No.	No.
January	7,721	1,972	4,947	802	6,513	447	761
February	10,192	2,045	7,276	871	8,918	496	778
March	8,366	1,996	5,636	734	7,095	500	771
April	9,979	2,262	7,067	650	8,610	595	774
May	10,900	2,237	7,978	685	9,493	628	779
June	11,150	2,398	8,126	626	9,687	674	789
July	11,452	2,385	8,401	666	9,954	710	788
August	12,142	2,301	9,076	765	10,626	741	775
September	12,671	2,444	9,455	772	11,003	887	781
October	11,382	2,140	8,607	635	9,700	897	785
November	11,297	2,582	8,129	586	9,630	893	774
December	10,407	2,624	7,241	542	8,777	871	759

Subsection 3.—Statistics of Mental Hospitals

At Dec. 31, 1945, there were 48,056 patients in mental institutions in Canada and 4,190 on parole or otherwise absent, making a total of 52,246, whereas the normal bed capacity was only 45,124, showing a seriously over-crowded situation if the patient population on Jan. 1, 1945, and the admissions and separations during the year are considered. This over-crowded condition was specially marked in the western provinces and in Quebec. Of the 48,056 resident patients in 1945, 36,643 were insane, 10,443 were mentally deficient, 716 were epileptic and 254 mental cases were otherwise classified.

The number of resident patients in mental institutions per 100,000 population on Dec. 31, 1945, was 396·5, as compared with 394·8 on the same date of 1944, 394·8 in 1943, 394·2 in 1942, 392·5 in 1941, 388·0 in 1940, 352·8 in 1935 and 305·4 on June 1, 1931.

Data are not available to indicate to what extent the increasing trend of patients per 100,000 population is due to more complete diagnosis and care than formerly, or to what extent there is an actual increase in the proportion of the population requiring treatment for mental diseases.

10.—Summary Statistics of Mental Institutions, by Provinces, 1945

Item		Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
Institutions reporting	No.	1	17	1	8	17
Normal bed capacities	"	290	2,541	1,000	13,670	16,572
Staff—						
Doctors, full-time	No.	1	2	5	30	77
Doctors, part-time	"	2	20	1	20	16
Graduate nurses	"	9	27	17	195	498
Other nurses	"	14	40	–	255	183
Totals, Staff[1]	**No.**	**71**	**385**	**182**	**2,472**	**3,678**
Movement of Population—						
Admissions (transfers not included)	No.	124	622	290	3,414	4,498
Totals, Under Treatment	"	**398**	**2,935**	**1,998**	**19,470**	**21,324**
Separations (transfers not included)	"	114	589	310	3,677	4,083
Total patients, Dec. 31	"	284	2,346	1,688	15,793	17,241
Receipts—						
Government and municipal payments	$	161,926	737,851	460,046	5,463,019	6,053,022
Fees from paying patients	$	23,358	49,906	64,182	661,599	1,357,451
Received from other sources	$	876	42,857	1,576	532,901	383,163
Totals, Receipts	$	**186,160**	**830,614**	**525,804**	**6,657,519**	**7,793,636**
Expenditures—						
Salaries	$	59,968	305,575	181,539	2,860,663	4,394,052
Provisions	$	56,968	236,141	158,706	1,521,348	1,326,246
All other expenditures for maintenance	$	69,224	270,332	185,559	1,663,143	1,697,815
Totals, Expenditures for Maintenance	$	186,160	812,048	525,804	6,045,154	7,418,113
New buildings and improvements	$	Nil	30,961	20,197	263,327	330,337
Expenditures for other purposes	$	"	3,089	Nil	653,986	5,861
Totals, Expenditures	$	**186,160**	**846,098**	**546,001**	**6,962,467**	**7,754,311**

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[1] Includes other personnel.

10.—Summary Statistics of Mental Institutions, by Provinces, 1945—concluded

Item		Manitoba	Saskatchewan	Alberta	British Columbia	Total
Institutions reporting	No.	4	2	5	4	59
Normal bed capacities	"	2,578	2,970	2,967	2,536	45,124
Staff—						
Doctors, full-time	No.	15	13	12	14	169
Doctors, part-time	"	Nil	Nil	2	3	64
Graduate nurses	"	56	13	46	25	886
Other nurses	"	103	203	99	277	1,174
Totals, Staff[1]	**No.**	**644**	**922**	**628**	**956**	**9,938**
Movement of Population—						
Admissions (transfers not included)	No.	751	755	662	1,152	12,268
Totals, Under Treatment	"	**3,908**	**4,924**	**3,717**	**5,342**	**64,016**
Separations (transfers not included)	"	692	707	556	1,042	11,770
Total patients, Dec. 31	"	3,216	4,217	3,161	4,300	52,246
Receipts—						
Government and municipal payments	$	1,074,474	1,347,738	1,164,316	1,951,739	18,414,131
Fees from paying patients	$	185,108	208,840	251,715	215,312	3,017,471
Received from other sources	$	56,614	151,657	31,754	567	1,201,965
Totals, Receipts	$	**1,316,196**	**1,708,235**	**1,447,785**	**2,167,618**	**22,633,567**
Expenditures—						
Salaries	$	644,074	850,906	711,718	1,229,323	11,237,818
Provisions	$	294,316	336,516	255,020	350,332	4,535,593
All other expenditures for maintenance	$	354,410	421,294	299,093	586,397	5,547,267
Totals, Expenditures for Maintenance	$	1,292,800	1,608,716	1,265,831	2,166,052	21,320,678
New buildings and improvements	$	23,396	99,519	196,482	Nil	964,219
Expenditures for other purposes	$	Nil	Nil	3,004	"	665,940
Totals, Expenditures	$	**1,316,196**	**1,708,235**	**1,465,317**	**2,166,052**	**22,950,837**

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[1] Includes other personnel.

Section 3.—The Victorian Order of Nurses for Canada

The Victorian Order of Nurses is a voluntary public-health agency, national in scope and having as its primary object the care of the sick in their own homes by visiting nurses. In 1946 there were 102 branches of the Order distributed as follows: Nova Scotia 16; New Brunswick 8; Quebec 5; Ontario 59; Manitoba 1; Saskatchewan 3; Alberta 2; and British Columbia 8. The affairs of each branch are directed by a local board, which raises the money necessary to carry on the work. However, the policies and professional standards set by the national organization are accepted by the branches. The Board of Governors of the national organization is made up largely of representatives appointed by the branches.

Registered nurses are employed by the Order and have, in addition, post-graduate training in public-health nursing. All appointments are approved by Headquarters at Ottawa, which also assumes responsibility for the supervision of the nurses' service.

A complete maternity service is offered. This includes instruction before the baby arrives, attendance at the time of confinement and nursing care and health supervision of mother and baby. If the baby is born in hospital the mother on her return home may request the services of a Victorian Order nurse to demonstrate the baby's bath and help to establish a plan for the infant's care. The nurse will continue to visit as long as health teaching and supervision is indicated.

During 1946 approximately 475 nurses in the field gave nursing care to 116,361 patients. Health teaching is an important function of the visiting nurse, and her entry into so many homes provides an unparalleled opportunity to make a worthwhile contribution toward the up-building of the health of the Canadian people.

The Order provides a community service available to everyone in the area served, regardless of race, creed or economic status. The nurses give care on a visit basis to medical, surgical, and maternity patients under medical direction and thus care for a large group of people who would otherwise be without skilled care. The budget of the average man makes very little allowance for the cost of illness. The patient is expected to pay the cost of the visit but the fee is adjusted to suit the family income and service is never refused because of inability to pay. Of the 852,873 visits made in 1946, 51 p.c. were free, 22 p.c. were paid, 16 p.c. were paid in part and 11 p.c. were paid for by insurance companies for care to patients. The cost of the service to those unable to pay is provided for by municipal grants and funds collected by means of campaigns.

In smaller centres where the Victorian Order nurse is the only public-health nurse the program of work is usually enlarged to include school-nursing service, child-hygiene centres, assistance at immunization clinics and other public-health services.

An increasing number of Victorian Order branches are giving part-time nursing service to industrial plants where the number of employees is not large enough to require the full-time services of a nurse.

Section 4.—The Canadian Red Cross Society

The Canadian Red Cross Society in both its wartime and peacetime work is closely allied in a voluntary capacity with the Dominion and Provincial Governments. The Society was founded in 1896 and incorporated in 1909, its purpose being to furnish volunteer aid to the sick and wounded of armies in time of war and, in time of peace or war, to carry on and assist in work for the improvement of health, the prevention of disease and the mitigation of suffering throughout the world. Organization includes National and Overseas Offices, Provincial Divisions and 2,500 Branches. The Society has a senior and junior membership of over 2,500,000 in Canada.

While the year 1946 was devoted in large part to the development and expansion of an extensive peacetime program in Canada, the needs of liberated peoples in Europe and Asia were by no means forgotten. During 1945 and 1946 some $18,000,000 worth of relief goods was poured into these countries both direct from Canada and from the Society's warehouses in the United Kingdom.

Assistance to Service Personnel and Dependents Returning to Canada.—This work was exceptionally heavy during 1946, the Government having entrusted to the Red Cross the task of meeting returning men and their dependents at ports of entry and conducting them on trains to their destinations. Red Cross conducting officers on all trains looked after the distribution of supplies, attended to the despatch of telegrams to relatives, organized reception centres and mobile canteens, and performed many other services.

For nearly three years now, the Canadian Red Cross has been escorting wives and children of Canadian service men from their homes in England, and later also from the Continent, to their Canadian destinations, including an escort service across the Atlantic. Approximately 61,200 persons, 41,400 brides and 19,800 children, were cared for by the Red Cross. In addition, about 9,000 Far East returned personnel, including 1,500 Canadian survivors of Hong Kong, were welcomed and helped *en route* to their homes in Canada or while crossing the Dominion bound for the United Kingdom.

Peacetime Services.—The aims of the Red Cross Society in peace are the same as in war—to improve health, prevent disease and mitigate suffering anywhere and everywhere in Canada to the full extent of its resources.

Veterans Aid.—This assistance is given, through Red Cross Lodges (recreational centres) adjacent to all large veterans hospitals in Canada; a summer Convalescent Hospital; residence Clubs for disabled war pensioners; regular visiting of all hospital patients who are supplied with extra comforts, library facilities, transportation, shopping service, instruction in handicraft, film service and other entertainment. Dental assistance, surgical supplies, clothing and other aid are provided for needy veterans and families.

Outpost Hospital Service.—At the end of 1946, a chain of 54 Red Cross Outpost Hospitals and Nursing Stations were in operation in the frontier districts of the Dominion, bringing medical science within reach of these isolated communities. A large number of new Outposts are planned to meet the needs of isolated regions and will be in operation during 1947.

Blood Transfusion Service.—Following an intensive survey, it was found that many hospitals in Canada are without the blood and facilities necessary for their transfusion needs. Every day, lives (mothers in childbirth, accident victims, operative cases) are being lost because of this deficiency. It is the aim of the Red Cross to supply sufficient blood so that everyone in Canada in need of a transfusion can have it, immediately, free of charge. The Society plans to operate its own Blood Depots and Sub-Depots across Canada (first Depot opened in Vancouver on Jan. 21, 1947) which will eventually provide blood to all Canadian hospitals. The blood will be provided by volunteer donors, as during the War.

Junior Red Cross.—This organization, devoted to the principles of health good citizenship and international friendliness, has helped over 25,000 crippled children since its inception. At the end of 1946, there were about 900,000 members in over 30,000 branches in schools in Canada and Newfoundland. These Juniors have given magnificent service in providing relief for child war victims throughout the world and have embarked upon an extensive peacetime service program which includes aid to handicapped children, assistance for disabled veterans in hospital, and many community projects.

First Aid, Swimming and Water Safety.—The Swimming and Water Safety Program was enthusiastically received from coast to coast throughout Canada in 1946. The Red Cross undertook this service in an endeavour to cut down the more than 1,000 drownings that take place in Canada each year. Through this nationwide service, the Red Cross joins with other agencies in this field. A wide First Aid Instruction Program also made good headway in 1946.

Health and Other Activities.—Improvement of the health of the Canadian people is one of the primary aims of the Society. Besides the health projects mentioned above, home-nursing instruction and nutrition service are important activities. Home-nursing courses are being conducted all over Canada to give women and girls elementary instruction in proper procedures of caring for the sick in their own homes. In this project, doctors, dentists, trained nurses and dietitians give their services free. The nutrition service expanded widely in 1946 with trained Red Cross dietitians servicing nearly all provinces. Attracting international interest is the first intensive long-range study ever made under controlled conditions of the effect of a school-meal program on the health and efficiency of a large group of school children, which was initiated in the autumn of 1946 by the National Nutrition Department. The purpose of this study is to obtain scientifically accurate information and to apply this information for the betterment of the health of school children not only in Canada but throughout the world.

Section 5.—The Order of St. John*

The origin of the Order of St. John goes back to the Crusades and the Knights of St. John and Malta. His Majesty the King is supreme head of the Order which has headquarters at London, England, and units in all parts of the British Empire. In Canada, the Governor General is the Prior and meetings of the Order are held at Government House. The organization in Canada is the Priory in Canada of the Grand Priory of the British Realm of the Venerable Order of the Hospital of St. John of Jerusalem, usually referred to as the Order of St. John.

The Priory in Canada has its headquarters and national offices at St. John House, Ottawa, Ont., with branches in every province and local centres in hundreds of cities and towns throughout Canada. There are two distinct branches: the Association whose members train instructors, conduct classes and issue various certificates; and the Brigade, members of which are in uniform under a form of military discipline, receive constant supplementary training, and are available for call whenever the need arises. The Brigade strength is approximately 15,000 persons, about equally divided between the Ambulance Division (men) and the Nursing Division (women), and organized into about 325 divisions from coast to coast.

The primary purpose of the Association is to teach first aid and home nursing and other kindred subjects to citizens of Canada, irrespective of age, and to provide trained and organized personnel to help in time of disaster or national emergency. The work was started in 1895 and since then more than 1,000,000 persons have received certificates and other awards. Many thousands of these went to members of the Armed Forces to which trained instructors and textbooks have been provided in large numbers. The railways of Canada and many large industrial concerns maintain their own St. John centres.

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* Including the St. John Ambulance Association and the St. John Ambulance Brigade.

The scheme of Voluntary Air Detachment Training inaugurated in 1943 provided trained personnel for overseas and, in addition, a number of members have been trained for service in Royal Canadian Army Medical Corps hospitals in Canada as well as for civilian hospitals.

The return of peace saw the Order of St. John revert to its wide field of peacetime service. The Brigade performs a very special function. At port cities it assists the regular R.C.A.M.C. doctors and nurses, helps in hospitals and merchant seamen's hostels and also assists shipwrecked seamen. Uniformed St. John Brigade members are to be found at all exhibitions, large demonstrations or wherever crowds gather. St. John First Aiders have also proved their worth on the ski-runs in the Laurentians, on Mount Royal, on the Gatineau Hills, at Fort William and other places where skiing is one of the major Canadian sports.

The Order of St. John is carrying on an extensive peacetime program of home nursing, first aid and blood grouping. The training of Brigade members as blood-typing technicians was commenced in 1943. The entire personnel of large industrial firms are being typed so that, in the event of serious accident, blood transfusions may be given in the quickest possible time.

CHAPTER VIII.—WELFARE SERVICES*

CONSPECTUS

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From a historical as well as a constitutional point of view, the responsibility for social welfare in Canada has rested on the provinces, which, in turn, have delegated a large share of this responsibility to the municipalities. It is but recently, relatively speaking, that the concept of public welfare has grown to include more than poor relief, sanitation and institutions of confinement and that the provinces have undertaken to meet these expanding needs by maintaining institutions of one kind or another, child welfare services, and other specialized programs. Thus, the provinces themselves have latterly assumed the major role in public welfare and, even though the municipalities have continued to carry substantial burdens, the Provincial Governments have taken a direct part in co-ordinating the work and assisting by subsidies and other means.

At the same time, an increasing measure of responsibility on the part of the Dominion has been in evidence: this was especially noticeable during the pre-war depression decade in the fields of unemployment relief, agricultural relief and old age pensions. While constitutional authority has not changed, except with respect to unemployment insurance, the pressure of events in the depression decade obliged the Dominion Government to help the provinces to shoulder their financial burdens by grants-in-aid, etc. To-day, therefore, the responsibility of the Dominion Government for problems arising in these fields has become fairly well established by custom rather than constitutional change, although what remained of unemployment relief after the introduction of unemployment insurance was turned back in 1941 to the provinces. A real effort was made by the Rowell-Sirois Commission to bring about the necessary redistribution of administrative and financial responsibility essential to the proper functioning of the Dominion and Provincial authorities in the complicated economic circumstances that are an outgrowth of the present century. This effort has been carried forward, but with varying success, in the proposals of the Dominion Government to the provinces with regard to social security, during the Dominion-Provincial Conferences held in 1945 and 1946 (see pp. 85-89).

Historically, welfare work begins with the care of the most needy and the care of the indigent, aged and infirm, homeless orphans, dependent, neglected and delinquent children, and the dependent deaf and blind. These classes have been recognized as a public responsibility since the earliest days, but the actual work of caring for them was, in great degree, undertaken by religious and philanthropic bodies, many of which were incorporated during the latter part of the nineteenth century. In many cases, Government aid was granted, with official inspection as the natural corollary. As early as 1752 an orphanage was opened at Halifax, N.S., for orphans and deserted children and in Upper Canada an Act was passed, towards the end of the century, to provide for the education and support of orphaned children. In the different colonies before Confederation, under various Acts of the Legislatures, houses of refuge, homes for the aged, orphanages and other charitable institutions were provided. The most serious welfare problems, particularly in Upper and Lower Canada, were those connected with immigration. Many immigrants were destitute on their arrival and were dependent on charity. In 1822, an immigrant hospital was opened at Quebec for the care of the indigent sick. Throughout the colonies before Confederation an interest in child welfare found expression in the incorporation of numerous institutions for friendless orphans and physically incapacitated children. These orphanages were largely supported by the philanthropy of societies or individuals and, if grants of public money were received, the management was subject to Government supervision. During this period, the orphanage was all that was available to the child who lacked normal home care.

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* Except as otherwise indicated, the material in this Chapter has been revised under the direction of Dr. G. F. Davidson, Deputy Minister of Welfare, Department of National Health and Welfare, Ottawa.

Since Confederation, the principle has become generally recognized that the indigent, aged and infirm, orphans, dependent and neglected children, the deaf and dumb and the blind should be the responsibility of the State. Numerous acts of the Provincial Legislatures have recognized municipal and provincial responsibility for these classes of the population by establishing institutions, welfare services, or other provisions for their care. In every province of Canada, public-welfare organizations now exist to look after their protection and well-being. Child-welfare work, as it is known to-day, was not recognized as a special field for case work until the close of the nineteenth century. Now, noteworthy contributions are being made in this field by the provincial child-welfare authorities, the Children's Aid Societies and other social agencies. Of the 468 institutions that reported at the Census of 1941, 76 were controlled by Provincial and County Governments, 61 by municipalities, 104 were under private auspices and 227 under religious and fraternal organizations.

The field of social welfare is a very wide one and includes the work of many voluntary organizations. The Canadian Welfare Council gives national direction to, and co-ordinates the work of, the local welfare agencies; specialized organizations, such as the Canadian National Institute for the Blind and the Canadian Federation of the Blind, occupy a somewhat similar role in their particular fields. The various Community Chest organizations and service clubs assist welfare work by helping to finance local organizations, and the great work of the Young Men's Christian Association, the Young Women's Christian Association, the Catholic Youth Organization and the Young Men's Hebrew Association, the Boy Scouts, Girl Guides and similar youth organizations, in what may be described as preventive rather than curative work, cannot be overlooked. Day nurseries provide services to many mothers who are obliged to work. Most of the activities of these organizations are not susceptible to statistical measurement. In the case of the Canadian Red Cross, the Victorian Order of Nurses, and the Order of Saint John, their fields of effort are more closely related to public health and are therefore treated in Chapter VII, at pp. 205-209.

An outline of the welfare work being carried on by the Dominion Government and by each of the Provincial Governments follows.

Section 1.—Dominion Welfare Services

The creation of the Department of National Health and Welfare (8 Geo. VI, c. 22, 1944), established for the first time a Department of the Federal Government in which matters of welfare are a primary responsibility. Prior to that time, the administration of Acts pertaining to social security and welfare was assigned to existing Departments or, as in the case of unemployment insurance, to a commission set up for the purpose. The Act of 1944 places under the Minister of National Health and Welfare the administration of any Acts, orders or regulations relating to welfare which are not by law assigned to any other Department.

Other functions of the Department more particularly relating to welfare are, in brief: the promotion of social security and social welfare of the people of Canada over which the Dominion has jurisdiction; investigation and research; the preparation and distribution of information on social and industrial conditions affecting the health and lives of the people; co-operation with provincial authorities with a view to co-ordination of efforts in providing for the social security and welfare of the people of Canada.

The Welfare Branch of the Department administers the Family Allowances Act, the Physical Fitness Act and the federal Old Age Pensions Act including pensions for the blind. The War Charities Act and the Voluntary War Relief Division, formerly administered by the Deparment of National War Services, were transferred to the Department of National Health and Welfare by Order in Council and have been administered by the Welfare Branch since Feb. 1, 1947.

The welfare of Indians and Eskimos is the responsibility of the Department of Mines and Resources (see Chapter XXXI). Other welfare services are administered by the Department of Labour, the Unemployment Insurance Commission and the Department of Veterans Affairs, as indicated on pp. 214-215.

Family Allowances.—The Family Allowances Act, 1944, was introduced for the purpose of equalizing opportunity for the children of Canada. The allowances are paid monthly to mothers and must be spent exclusively towards the maintenance, care, training, education and advancement of the child. If it is satisfactorily shown to the authorities that the money is not being spent for this purpose, payment can be discontinued or made to some other person or agency on behalf of the child. It is further set out in the Act that if any person is dissatisfied with a decision as to his right to be paid an allowance or as to the amount of allowance payable to him or as to any other matter arising under the Act, he may appeal against such decision to a tribunal established for that purpose.

To be eligible for allowances, children must have been born in Canada or have lived in this country for three consecutive years, except the children of men or women who have served in the Armed Forces. Children of members of the three Armed Services are eligible even though born outside the country. A further important clause in the eligibility regulations concerns education. The allowance is not payable to a child who, being above the age of six years and physically fit to attend school, fails to do so or to receive equivalent training. The allowance ceases when a child reaches the age of sixteen.

The allowances, which are tax free, are paid by cheque monthly at the following rates:—

Children under 6 years of age	$5
Children from 6-9 years of age, inclusive	$6
Children from 10-12 years of age, inclusive	$7
Children from 13-15 years of age, inclusive	$8

1.—Family Allowance Statistics, July, 1945, March, June, September, December, 1946, and March, 1947

Province	Date	Families to Whom Allowances Were Paid	Total Children	Average Children per Family	Average Allowance		Total Allowances Paid
					per Family	per Child	
		No.	No.	No.	$	$	$
Prince Edward Island..	July, 1945	11,702	29,207	2·50	15·13	6·06	177,058
	Mar., 1946	11,999	30,541	2·54	15·09	5·93	181,007
	June, 1946	12,021	30,456	2·53	15·07	5·95	181,149
	Sept., 1946	12,050	30,635	2·54	15·18	5·97	182,975
	Dec., 1946	12,179	30,910	2·54	15·13	5·96	184,276
	Mar., 1947	12,280	31,203	2·54	15·09	5·94	185,368
Nova Scotia...........	July, 1945	64,213	155,121	2·42	14·35	5·94	921,333
	Mar., 1946	76,789	183,447	2·39	14·17	5·93	1,087,899
	June, 1946	76,764	183,048	2·38	14·21	5·96	1,091,034
	Sept., 1946	77,728	184,789	2·38	14·22	5·98	1,105,552
	Dec., 1946	79,824	188,768	2·36	14·17	5·99	1,131,079
	Mar., 1947	84,172	196,530	2·33	13·92	5·96	1,171,436
New Brunswick........	July, 1945	54,036	143,152	2·65	15·71	5·93	849,136
	Mar., 1946	58,933	156,961	2·66	15·66	5·88	923,155
	June, 1946	59,551	158,247	2·66	15·62	5·88	930,193
	Sept., 1946	60,794	160,167	2·63	15·52	5·89	943,484
	Dec., 1946	62,158	162,844	2·62	15·42	5·89	958,711
	Mar., 1947	65,071	168,114	2·58	15·22	5·89	990,720
Quebec................	July, 1945	354,881	1,029,246	2·90	16·76	5·78	5,948,309
	Mar., 1946	396,904	1,118,540	2·82	16·71	5·93	6,634,200
	June, 1946	405,812	1,145,797	2·82	16·53	5·85	6,706,662
	Sept., 1946	414,923	1,162,197	2·80	16·46	5·87	6,828,111
	Dec., 1946	424,109	1,174,526	2·77	16·31	5·89	6,918,180
	Mar., 1947	445,669	1,230,312	2·76	16·14	5·85	7,195,361
Ontario................	July, 1945	384,921	798,725	2·08	12·56	6·05	4,836,416
	Mar., 1946	456,219	937,982	2·05	12·43	6·05	5,672,760
	June, 1946	458,745	941,533	2·05	12·36	6·02	5,670,179
	Sept., 1946	467,667	955,404	2·04	12·33	6·04	5,767,673
	Dec., 1946	487,051	984,644	2·02	12·20	6·03	5,941,309
	Mar., 1947	526,400	1,051,206	2·00	12·05	6·03	6,343,706
Manitoba..............	July, 1945	80,106	169,686	2·12	12·86	6·07	1,029,982
	Mar., 1946	87,252	184,692	2·12	12·84	6·06	1,120,206
	June, 1946	88,483	187,271	2·12	12·94	6·11	1,144,715
	Sept., 1946	89,892	190,444	2·12	12·76	6·02	1,147,457
	Dec., 1946	93,058	195,679	2·10	12·72	6·05	1,183,520
	Mar., 1947	97,698	203,681	2·08	12·62	6·05	1,233,324
Saskatchewan..........	July, 1945	97,444	232,966	2·39	14·34	6·00	1,397,838
	Mar., 1946	106,067	248,319	2·34	14·04	6·00	1,488,989
	June, 1946	107,103	248,218	2·32	13·95	6·02	1,494,690
	Sept., 1946	108,310	249,376	2·30	13·89	6·03	1,504,113
	Dec., 1946	109,792	250,407	2·28	13·76	6·03	1,511,376
	Mar., 1947	112,625	255,424	2·27	13·75	6·06	1,548,593
Alberta................	July, 1945	94,678	213,162	2·25	13·61	6·05	1,289,084
	Mar., 1946	103,804	230,767	2·22	13·40	6·03	1,391,070
	June, 1946	104,655	231,312	2·21	13·30	6·02	1,391,911
	Sept., 1946	105,345	231,520	2·20	13·25	6·03	1,395,992
	Dec., 1946	110,178	238,434	2·16	13·22	6·11	1,456,608
	Mar., 1947	115,198	248,512	2·16	12·98	6·02	1,495,057
British Columbia......	July, 1945	95,773	185,579	1·94	11·61	5·99	1,111,778
	Mar., 1946	106,840	204,754	1·92	11·52	6·01	1,231,304
	June, 1946	108,325	205,785	1·90	11·52	6·06	1,247,526
	Sept., 1946	111,433	213,093	1·91	11·53	6·03	1,285,142
	Dec., 1946	116,855	225,293	1·93	11·44	5·93	1,336,878
	Mar., 1947	126,622	242,010	1·91	11·31	5·91	1,431,689
Yukon and N.W.T.....	July, 1945	Nil	Nil	Nil	Nil	Nil	Nil
	Mar., 1946	1,344	3,097	2·30	16·88	7·32	22,683
	June, 1946	1,700	3,915	2·30	13·54	5·88	23,017
	Sept., 1946	1,799	4,077	2·27	13·19	5·86	23,729
	Dec., 1946	2,224	4,998	2·25	13·14	5·84	29,217
	Mar., 1947	2,721	6,070	2·23	13·12	5·88	35,694
Canada................	**July, 1945**	**1,237,754**	**2,956,844**	**2·39**	**14·18**	**5·94**	**17,560,934**
	Mar., 1946	**1,406,151**	**3,299,100**	**2·35**	**14·05**	**5·99**	**19,753,273**
	June, 1946	**1,423,159**	**3,335,582**	**2·34**	**13·97**	**5·96**	**19,881,076**
	Sept., 1946	**1,449,941**	**3,381,792**	**2·33**	**13·92**	**5·97**	**20,184,228**
	Dec., 1946	**1,497,428**	**3,456,503**	**2·31**	**13·79**	**5·97**	**20,651,154**
	Mar., 1947	**1,588,456**	**3,633,062**	**2·29**	**13·62**	**5·95**	**21,630,948**

The allowances are reduced after the fourth child as follows: one dollar reduction for the fifth child, two dollars each for the sixth and seventh child and three dollars for each additional child.

The Family Allowances administration is highly decentralized. Reporting to the National Director at Ottawa are Regional Directors in each of the provincial capitals and a Regional Director for the Northwest Territories and Yukon. Each regional office is divided into two main sections—the administrative, which carries out all matters of policy, and the treasury division, which devotes itself exclusively to the issuance of the monthly cheques. The Regional Treasury Officers report to the Chief Treasury Officer of the Department of National Health and Welfare.

Each regional office has a Supervisor of Welfare Services who acts as adviser to the Regional Director in social welfare matters and directs the staff of the Welfare Section. On the Dominion level, similarly, a Chief Supervisor of Welfare Services acts as adviser to the National Director.

Study of the statistics (p. 213) reveals a steady increase in the number of children in receipt of allowances, accounted for in large part by the fact that the number of children reaching age 16, and thus becoming ineligible, was more than offset by the number of births. The lower average age of the children, which has resulted from this change in distribution by age, is reflected in a reduced average allowance per child. In addition, the number of new one-child families coming into the plan together with the retirement of elder children reaching age 16 proved sufficient to reduce the average number of children per family. Average allowance per family has, therefore, decreased. It may be noted, however, that continuance of this trend depends on the effect that further shifts in the age distribution of the children may have on average allowance per child and size of average family.

It will be noted that between December, 1946, and March, 1947, there was a sharp increase in the number of families to whom allowances were paid. This is explained by an amendment to the Income War Tax Act effective Jan. 1, 1947. Prior to that date, through income tax adjustment, the Government recovered on a sliding scale a proportion of the allowance actually received. In 1946, 100 p.c. recovery was reached at an income level of $3,600. Hence, many in the upper income brackets did not apply for the allowance. Under the amended Act, it was to their advantage to apply because the amount deductible from taxable income is the same for all children who are eligible to receive the allowance irrespective of registration under the Act.

Unemployment Insurance.—In 1940, by an amendment to the British North America Act, the Dominion Government was given complete jurisdiction in the field of unemployment insurance and since that time a national system of unemployment insurance administered by the Unemployment Insurance Commission has been in operation. (See Chapter XX on Labour.)

National Physical Fitness Program.—Under the Physical Fitness Act, which came into force on Oct. 1, 1943, the Dominion Government provides financial assistance to those provinces desiring to promote and carry out physical fitness and recreational projects. This subject is dealt with under Section 3, pp. 232-233.

Veterans Allowances.—In addition to war pensions, allowances are paid to certain non-pensionable veterans at 60 years of age, or earlier if the veteran is permanently unemployable or to eligible veterans who, having served in a theatre of actual war, are incapable and unlikely to become capable of maintaining themselves because of economic handicaps combined with disabilities. These allowances are dealt with in Chapter XXX on Veterans Affairs.

Dependents Allowances.*—The Dependents' Allowance Board is charged with the payment of allowances to dependents of members of the Armed Forces, the main purpose of which is to promote the well-being and efficiency of His Majesty's Forces by relieving financial anxieties with respect to the domestic welfare of their dependents.

The Board consists of a civilian chairman and representatives from the three Armed Services and the Treasury, and administers all allowances. Where investigation is necessary, it is carried out through the field staffs of the Department of National Health and Welfare, the Soldier Settlement Board, provincial welfare services, and private welfare organizations such as Children's Aid Societies and Family Welfare Bureaus.

A special Family Welfare Section has been instituted by the Board to administer allowances when the recipient is infirm or where domestic difficulties necessitate the intervention of a third party. The wife of a service man may request administration of her allowance in case of illness or of her financial affairs becoming involved. The Section maintains the closest co-operation with the various welfare agencies.

Veterans Unemployment Assistance.—The Department of Veterans Affairs does not place veterans in employment, but works closely with the Department of Labour in connection with veterans' problems. Out-of-work benefits are authorized in certain cases as outlined in Chapter XXX.

Government Annuities.†—Under the Government Annuities Act (c. 7, R.S.C. 1927, amended by c. 33, 1931) passed in 1908, the Dominion Government carries on a service that permits and encourages Canadians, during the earning period of their lives, to make provision for their old age. The Act is now administered by the Minister of Labour.

A Canadian Government annuity is a fixed yearly income purchased from and paid by the Government of Canada. The annuity is payable in quarterly instalments (unless otherwise expressly provided) for life and may be guaranteed for ten, fifteen, or twenty years in any event. The minimum amount of annuity obtainable on the life of one person or on the lives of two persons jointly is $10 a year and the maximum amount is $1,200 a year.

Annuity contracts are of two classes, deferred and immediate, under each of which there are various plans available. Deferred annuity contracts are for purchase by younger persons desiring to provide for their old age, purchase being made by monthly, quarterly or yearly premiums, or by single premium. Immediate annuity contracts are for purchase by older persons who wish to obtain immediate regular incomes through their accumulated savings.

The property and interest of the annuitant in a contract for a Government annuity is neither transferable nor attachable. In the event of the death of the annuitant before the date fixed for the annuity to begin, all money paid is refunded to the purchaser or his legal representatives with interest at the rate of 4 p.c. per annum, compounded annually.

Although in the majority of cases annuities issued on the lives of individuals have been purchased by the individuals themselves, provision is made in the Act whereby employers may contract for the purchase of annuities on behalf of their employees, or associations on behalf of their members. This provision has been taken advantage of increasingly in the past few years through group annuity plans, under which the purchase money required is derived partly from the wages of employees and partly from employer contributions.

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* Revised by the Director of Public Relations, Department of National Defence, Ottawa.

† Revised by the Government Annuities Branch, Department of Labour, Ottawa.

The group annuity plans in effect cover a wide variety of industries and many municipal corporations, well distributed throughout Canada. Benefits under annuities sold under group plans in recent years are now providing retirement income for many of the older members of the groups.

From Sept. 1, 1908, the date of the inception of the Government annuities system, up to and inclusive of Mar. 31, 1946, the total number of annuity contracts and certificates issued was 151,038. Of these, 17,651 have been cancelled, leaving in force on Mar. 31, 1946, 133,387 contracts and certificates. The total amount of purchase money received during the same period was $318,780,755.

Up to Mar. 31, 1946, 433 corporations, institutions and associations had entered into agreements with the Government to purchase annuities, and on that date 45,416 employees or members were purchasing deferred annuities thereunder, agreements being drawn up according to specific requirements in each case. The number of annuities for the year under review included 17,355 deferred annuity certificates issued under the system whereby one group contract is issued for each group, the employee or member receiving a certificate.

Up to June, 1940, annuity payments were, with certain exceptions, exempt from taxation under the Income War Tax Act. Under contracts issued after that date, income was fully taxable until the Act was amended in 1945. Under the amendment, the capital element in contractual annuities issued since June, 1940, was declared exempt from taxation, the portion representing interest being subject to tax as income. The change applies to income of 1945 and subsequent years.

2.—Government Annuities Contracted, and Purchase Money Received, Years Ended Mar. 31, 1925-46

Note.—Figures for the years 1909 to 1924 will be found at p. 873 of the 1942 Year Book.

Year	Contracts and Certificates	Purchase Money Received	Year	Contracts and Certificates	Purchase Money Received
	No.	$		No.	$
1925	486	1,606,822	1936	6,357	21,281,981
1926	668	1,938,921	1937	7,806	23,614,824
1927	503	1,894,885	1938	5,724	13,550,483
1928	1,223	3,843,088	1939	8,518	18,189,319
1929	1,328	4,272,419	1940	9,014	20,001,533
1930	1,257	3,156,475	1941	11,994	18,803,645
1931	1,772	3,612,234	1942	8,593	19,630,645
1932	1,726	4,194,384	1943	9,608	20,415,365
1933	1,375	3,547,345	1944	19,354	26,600,098
1934	2,412	7,071,439	1945	15,796	33,076,436
1935	3,930	13,376,400	1946	25,538	46,954,536

3.—Government Annuities Fund Statements, Years Ended Mar. 31, 1942-46

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
Assets					
Fund at beginning of fiscal year	156,053,072	172,911,035	190,298,479	213,561,537	243,537,624
Receipts during the year, less payments	16,857,963	17,387,444	23,263,058	29,976,087	43,955,032
Fund at end of fiscal year	172,911,035	190,298,479	213,561,537	243,537,624	287,492,656
Liabilities					
Value of outstanding contracts	172,911,035	190,298,479	213,561,537	243,537,624	287,492,656
Receipts					
Immediate annuities	7,043,299	5,475,992	5,688,944	7,686,992	12,857,728
Deferred annuities	12,640.571	15,026,136	21,020,193	25,676,877	34,470,916
Interest on fund	6,373,932	7,026,977	7,802,409	8,826,238	10,193,045
Amount transferred to maintain reserve	616,982	497,790	32,181	257,288	293,798
Totals, Receipts	**26,674,784**	**28,026,895**	**34,543,727**	**42,447,395**	**57,815,487**
Payments					
Payments under vested annuity contracts	9,445,176	10,147,590	10,849,633	11,724,554	12,938,362
Return of premiums with interest	318,419	405,098	321,996	459,321	547,985
Return of premiums without interest	53,226	86,763	109,040	287,433	374,108
Totals, Payments	**9,816,821**	**10,639,451**	**11,280,669**	**12,471,308**	**13,860,455**

4.—Numbers and Values of Annuity Contracts, as at Mar. 31, 1945 and 1946

Classification	1945			1946		
	Annuities	Amount of Annuities	Value, at Mar. 31, of Annuities in Force	Annuities	Amount of Annuities	Value, at Mar. 31, of Annuities in Force
	No.	$	$	No.	$	$
Immediate	13,244	4,817,805	45,343,920	14,490	5,353,891	50,186,305
Immediate guaranteed	13,542	5,749,070	68,082,223	15,248	6,680,316	78,835,182
Immediate last survivor	3,745	1,591,717	21,476,478	3,960	1,710,328	22,959,689
Deferred	81,653	[1]	108,635,003	99,689	[1]	135,511,480
Totals	**112,184**	**12,158,592**[2]	**243,537,624**	**133,387**	**13,744,535**[2]	**287,492,656**

[1] Undetermined. [2] Amount of immediate annuities.

Section 2.—Provincial Welfare Services*

Provincial health and welfare services are, in many instances, interrelated and administered by the same Provincial Departments. In view of this fact, it is sometimes difficult to set a definite demarcation between the two services. So far as possible, this Section deals with the well-being of the people with regard to social aid, child welfare, allowances and pensions for mothers and the aged and blind. Public health and related institutions are dealt with in Chapter VII, pp. 186-209.

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* Revised by the Provincial authorities responsible for the administration of the various welfare services.

Subsection 1.—Welfare Services of the Individual Provinces

Prince Edward Island.—The Department of Health and Welfare of the Province of Prince Edward Island administers the following statutes:—

(1) The Public Health Act.
(2) The Old Age Pensions Act.
(3) The Children's Act.
(4) The Vital Statistics Act.
(5) The Electrical Inspection Act.
(6) The Falconwood Hospital and Infirmary Act.
(7) The Premarital Health Examination Act.
(8) The Venereal Disease Prevention Act.

It also administers direct relief payments, and extra-mural treatment for tuberculosis, and supervises all Governmental medical services, including the Provincial Sanatorium, the Hospital for the Insane, and the Infirmary for the care of the aged and infirm. In the Province there are two orphanages, one Protestant and one Roman Catholic, operated as private institutions. Two Children's Aid Societies are active and operate under authority of the Children's Act.

There is no system of *workmen's compensation* or *mothers' allowances* in the Province, but persons employed under the Dominion Government are provided for under the schedules of the New Brunswick Workmen's Compensation Act.

Old Age Pensions and Pensions for the Blind.—The Province has co-operated in the Dominion-Provincial Old Age Pension plan since July 1, 1933, and with the amendment to the Act providing for the payment of pensions to blind persons since Dec. 1, 1937. For statistics see pp. 229-231.

Nova Scotia.—The Public Welfare Services are administered by the Minister of Public Welfare in the Department of Public Welfare and are specifically concerned with the following matters:—

Child and Family Welfare.—This branch of the Department includes:—

(1) Child protection.
(2) Assistance to and supervision of Children's Aid Societies.
(3) Supervision of children in adoptive and foster homes.
(4) Family case work.
(5) Psychiatric service for children and families under (3) and (4), and for the public schools on request of the Education Department.
(6) Inspection of all child-caring institutions and ownership of, and responsibility for, the operation of the Nova Scotia Training School for Mentally Deficient Children.

These Services include six juvenile courts and probation officers; financial aid and technical advice given to 12 Children's Aid Societies; inspection of foster homes and shelters; inspection of and per capita financial assistance to reformatory institutions. Most of the wards of the Children's Aid Societies are in either free foster homes or family boarding homes, although some are in the regular child-caring institutions. Maintenance is paid on a 40-60 p.c. basis between the Province and the municipalities. Financial provision for the maintenance of children in reformatory institutions is at the rate of $175 per annum from the municipality and an equal amount from the Province. For children in the Training School for the Mentally Defective, the municipality pays $200 per child per annum, all other expenses being borne by the Province.

A considerable volume of work has been done for the Dominion Government in connection with soldiers' families.

Mothers' Allowances.—Enabling legislation was passed in 1930 and became effective on Oct. 1 of that year. Statistics under the Act are given at pp. 226-228.

Public Charities.—These services are varied and include aid to persons who have no legal claim on any municipality in the Province or any specific poor district but who require public assistance.

Old Age Pensions and Pensions for the Blind.—The Province has co-operated with the Dominion-Provincial Old Age Pension plan since March, 1934, and with the amendment to the Act providing for the payment of pensions to blind persons since Oct. 1, 1937. For statistics see pp. 229-231.

In addition to the above matters, the following subjects, though not part of the public welfare program proper, are controlled by the Province:—

Homes for the Aged.—Although no provincial grants are paid to homes for the aged operated by municipalities, religious or private bodies and subject to provincial inspection, many such homes receive public funds indirectly. In certain cases old age pensioners boarding in these homes may pay their pensions directly to the institution or by private agreement pensions may be paid to the institution by the Pension Board of the Department if the pensioner is incapable of managing his own affairs.

The Workmen's Compensation Board.—This legislation was passed in 1915, but did not come into operation until Jan. 1, 1917. The subject of workmen's compensation is not as directly related to welfare as the other services dealt with. The Province, in its control of trade and industry, enacts compensation legislation and supervises its administration, but workmen's compensation is financed by and is essentially the responsibility of industry. See also Chapter XX on Labour.

New Brunswick.—The welfare services provided by the Government of New Brunswick are under the direct supervision of the Minister of Health and Social Services and consist of:—

(1) Children's Protective Service.
(2) Mothers' Allowances.
(3) Old Age Pensions and Pensions for the Blind.
(4) Homes for the Aged.
(5) Workmen's Compensation.

Children's Protective Service.—This Service includes the administration of the Children's Protection Act and the Adoption Act; services under these Acts are carried out by a Child Welfare Officer. Children's Aid Societies are organized in all counties, some of which employ full-time agents. Orphanages are under the auspices of religious or private bodies, but there are certain municipal institutions that receive adults and children: these are subject to provincial inspection.

Mothers' Allowances.—The Mothers' Allowances Act was passed on Apr. 6, 1944, and provides for allowances to mothers who are widowed or who, for other reasons, are without means of support. See pp. 226-228.

Old Age Pensions and Pensions for the Blind.—The Province has co-operated with the Dominion-Provincial Old Age Pension plan since July 1, 1936, and with the amendment to the Act providing for the payment of pensions to blind persons, since Sept. 1, 1937. For statistics see pp. 229-231.

Homes for the Aged.—These are operated under municipal, religious, fraternal or private auspices and are subject to provincial inspection.

Workmen's Compensation.—The Workmen's Compensation Act was passed in 1918 and came into force on Jan. 2, 1919. See also Chapter XX on Labour.

Quebec.—The Quebec Department of Health and Public Welfare administers a comprehensive plan of social welfare, including aid to, and the supervision of, the numerous welfare institutions operated by religious orders or private charity. In Quebec, the administrative policy of welfare services is somewhat different from that of other provinces in that the responsibilities ordinarily assumed by the public authorities are, in many cases, delegated to recognized religious and private welfare agencies, aided by substantial grants from public funds. The Provincial Relief Act provides for assistance without undue interference with the life of the family.

A noteworthy feature in the line of preventive work is that carried out by the Family Registry Office, whereby children from tubercular families, who have not been infected but for whom there is reason to be apprehensive, are boarded out with rural families. This Office works in conjunction with local ministers and doctors, as regards the moral and physical supervision of these children.

Another aspect of the welfare program in this Province is the colonization scheme, whereby needy families are settled on the land in newly opened districts, and are supervised and granted financial aid until they become self-supporting.

The Government of the Province of Quebec is aware that the future of the Province and the survival of its institutions, including the numerous grave problems bearing on the future of youth, depend largely on the long-term policies adopted by the Government in regard to such matters. An Act was passed at the 1946 Session of the Quebec Legislature to set up a Department of Social Welfare and Youth which shall study such problems and administer all laws of the Province of Quebec having for their object the social welfare of the people and assistance to youth in preparation for its future.

Mothers' Allowances.—The Needy Mothers' Assistance Act, 1937, became effective in December, 1938. For statistics of operations under the Act, see pp. 226-228.

Workmen's Compensation.—The Quebec Workmen's Compensation Commission was established in 1928 by authority of cc. 79 and 80 of the Statutes of that year. The Act was brought into force by proclamation on Mar. 22, 1928, operations of the Commission commencing as of Sept. 1, 1928. Under this Act, the Quebec Commission did not insure employers against their liability. On Apr. 4, 1931, a new Act (21 Geo. V, c. 100), effective Sept. 1, 1931, provided for such insurance, along the lines of the Workmen's Compensation Act of Ontario. See also Chapter XX on Labour.

Old Age Pensions and Pensions for the Blind.—The Province has co-operated with the Dominion-Provincial Old Age Pension plan since Aug. 1, 1936, and with the amendment to the Act providing for the payment of pensions to blind persons since Oct. 1, 1937. For statistics, see pp. 229-231.

Ontario.—The Department of Public Welfare administers the following forms of assistance:—

Child Welfare Division.—In this Division are included:—

(1) The Children's Aid Branch, which is responsible for the administration of the Children's Protection Act, the Children of Unmarried Parents Act and the Adoption Act; supervision of 53 Children's Aid Societies in the Province. Since the cessation of hostilities, this Branch has co-operated with the Dominion Department of Veterans Affairs in assisting with the re-establishment of returned veterans and family welfare problems.

(2) The Day Nurseries Branch. An Act respecting day nurseries passed by the Ontario Legislature in 1946 provides for the establishment of day nurseries in Ontario, serving the pre-school child. Under the Act, any municipality may establish a nursery and receive provincial contribution equal to one-half operation and maintenance expenditures. The Act also provides for the supervision of all day nurseries throughout Ontario.

(3) The British Child Guests Branch, which continues the supervision of British children evacuated from the United Kingdom during the War who still remain in Ontario.

(4) Supervision of institutions for children.

Mothers' Allowances.—Since 1920, allowances have been paid by the Province to widows and other necessitous mothers. In addition to basic allowances, free medical services, including necessary drugs, are provided, as well as a 20 p.c. cost-of-living bonus. In addition, the Commission has discretionary authority to increase any beneficiary's allowance, up to $10 per month, where need is shown. See also pp. 226-228.

Soldiers' Aid Commission.—Through the Commission, advice and emergency assistance is extended to ex-service men of the First and Second World Wars and their families.

Old Age Pensions and Pensions for the Blind.—The Province has co-operated in the Dominion-Provincial Old Age Pensions plan since Nov. 1, 1929. Benefits reach a maximum of $25 per month, plus a $3 maximum cost-of-living bonus paid by the Province, which also provides free medical services, including necessary drugs. In 1937, Ontario was one of the first provinces to pay pensions to the blind under provisions of the Old Age Pensions Act. For statistics, see pp. 229-231.

Homes for the Aged.—Homes for the aged are incorporated under the Houses of Refuge Act, the Houses of Refuge in Districts Act and the Charitable Institutions Act, and are operated by cities, counties, districts and religious or benevolent societies under provincial supervision.

Unemployment Relief.—The Unemployment Relief Act of Ontario authorizes contribution on the part of the Department of Public Welfare toward alleviation of distress of unemployable persons. The municipalities of the Province are reimbursed 50 p.c. of the expenditures, while in the unorganized areas the Province administers and pays the total cost of aid rendered.

Workmen's Compensation.—The Workmen's Compensation Act came into force on Jan. 1, 1915. See Chapter XX on Labour.

Manitoba.—For the organization of the Department of Health and Public Welfare of the Province, see p. 190. The Welfare Division of that Department has two broad subdivisions:—

(1) Public Welfare Services and Assistance includes the administration of Mothers' Allowances throughout the Province, social assistance in the unorganized territory of the Province, and the care of transient non-residents. It also includes child care and protection services and the supervision of five Children's Aid Societies covering practically the whole Province. Grants to charitable institutions are made upon the recommendation of the Welfare Supervision Board. A Public Welfare Advisory Committee appointed by the Lieutenant-Governor in Council in May, 1945, acts in an advisory capacity to the Minister on all aspects of public welfare.

(2) Old Age Pensions and Pensions for the Blind. As at May 1, 1945, the Welfare Division assumed responsibility for the general administration of old age pensions and pensions for the blind. For statistics, see pp. 229-231.

Mothers' Allowances.—Manitoba was the first province to enact this type of legislation, the Act having come into force on Mar. 10, 1916. Statistics of operations are given on pp. 226-228.

Social Assistance.—This includes provision for unemployable and unemployed persons in unorganized territory and the maintenance of aged and incurable persons from unorganized territory in and outside institutions.

Workmen's Compensation.—The Workmen's Compensation Act came into force Jan. 1, 1917. See also Chapter XX on Labour.

Saskatchewan.—The Department of Social Welfare is charged with the responsibility of administering all Acts concerning welfare which have been placed on the Statutes of the Province. The Department is divided into three main Branches:—

(1) Child Welfare Branch.

(2) Old Age Pensions Branch.

(3) Social Aid Branch.

In addition, the Department is divided into the following Divisions: Administrative Division, Welfare Services Division, Mothers' Allowance Division, Home for the Infirm, and Industrial School for Boys.

The Social Welfare Board, which consists of the Directors of the three main Branches with the Deputy Minister as Chairman, deals with all applications for assistance under the various Acts administered by the Department.

Child Welfare.—This Branch supervises and directs the Child Welfare activities of the Province and deals mainly with delinquent children, wards, children of unmarried parents, orphaned and neglected children, education of blind children, foster homes, children's shelters, supervision of institutions, and adoptions.

A children's shelter is being operated by the Branch at the present time and another is in course of construction which will provide for the needs of orphaned and neglected Métis children in the northern and outlying districts of the Province. There are Children's Aid Societies in the three largest cities, two of which maintain shelters.

Some of the older wards are being maintained in homes and on farms under Wage Agreements and, after allowing a reasonable amount for their requirements, arrangements are made to place the balance of their wages in a trust fund to be used at a later date for establishing them.

All institutions or homes operated in the Province for the betterment and well-being of children are subject to supervision and inspection by the officials of the Branch so that a uniform standard may be maintained.

Where a child, other than a child born out of wedlock, is committed as a ward of the Minister of Social Welfare, the judge committing the child may order the municipality in which the child was residing at the time of apprehension to pay the sum of not less than $3·50 per week until the child becomes 16 years of age. No charge is laid against the municipality where the total of such maintenance charges exceeds one mill of the tax rate to be applied towards the maintenance of the said child.

Old Age Pensions and Pensions for the Blind.—This Branch administers the payment of old age pensions and pensions for the blind under supervision of the Social Welfare Board which was set up under the provisions of the Social Welfare Act, 1944. Saskatchewan was the second province in Canada to inaugurate the payment of old age pensions, the agreement became effective on May 1, 1928, while the payment of pensions to the blind commenced on Nov. 15, 1937. For statistics, see pp. 229-231.

Social Aid.—This Branch makes provision for indigent persons in co-operation with the various municipal units of the Province; such aid is shared on a 50-50 basis by the Province and the municipality concerned. Social aid is provided for transient indigent persons, the cost of which is borne entirely by the Province. The Branch operates a farm on which it employs a number of Métis families who were formerly recipients of social aid. This farm is proving to be a valuable asset and progress is being made in re-establishing these people by teaching them modern farm methods, and in making them self-supporting by paying them wages for services rendered. A school for Métis children was established at Crescent Lake in 1946 and another is under consideration for the Duck Lake district.

Arrangements are being made for the opening of a hostel in Regina to provide suitable living quarters for teen-age girls who are wards of the Minister of Social Welfare.

Provision for the payment of Mothers' Allowances is made in the Child Welfare Act and was originally enacted in 1917 as the Mothers' Pensions Act. More recently the administration of mothers' allowances has been made the responsibility of the Social Aid Branch. See also pp. 226-228.

Industrial School for Boys.—The Department has assumed the management and operation of the School which provides corrective training and academic instruction for delinquent boys of from 10 to 16 years of age.

Home for the Infirm.—The Department also operates a Home for the Infirm which provides accommodation for approximately 90 aged and infirm people. The Department also has supervisory powers over all privately operated homes in the Province which render similar service. Plans are under way for the construction of another Home to be operated by the Department which will accommodate approximately 150 to 200 aged and infirm persons.

Workmen's Compensation.—The Workmen's Compensation Act came into force July 1, 1930. See Chapter XX on Labour.

Alberta.—The Department of Public Welfare, established Apr. 1, 1944, administers a comprehensive program of welfare activities. The following Statutes are administered by the Department:—

(1) Bureau of Public Welfare.
(2) Métis Population Betterment Act.
(3) Child Welfare Act.
(4) Relief Liability Act.
(5) Improvement District Act (Sects. 43, 44 and 45).
(6) Unemployment Relief Act.
(7) Old Age Pension Act.
(8) Mothers' Allowance Act.
(9) Homes for Aged or Infirm Act.

Bureau of Public Welfare.—This Bureau, commonly known as the Relief Branch, provides assistance to the needy who have no municipal residence. It also provides grants and aid to municipalities which have given assistance to resident unemployed employables.

Two hostels for men are maintained at Edmonton and Calgary where destitute single men without permanent municipal domicile are cared for, and two welfare depots are maintained in the country. Single ex-service men are cared for in Calgary and Edmonton without being institutionalized. The Bureau has been successful in the rehabilitation of families by resettling them on the land.

Métis Rehabilitation Branch.—The rehabilitation of the Métis—those of mixed Indian and White blood who do not qualify under the Indian Act—has been carried out by the setting aside of tracts of land as Métis Settlement Areas, where the settlers have exclusive fishing, hunting and trapping rights and where they are encouraged to engage in lumbering, agriculture and stock-raising. Educational and social services are provided and Government-operated stores sell goods at cost price.

Child Welfare Branch.—Care of children who become wards of the Province either by neglect, delinquency or by indenture and agreement come under the exclusive control of the Child Welfare Commission. They may be placed either in foster homes, in paid boarding homes or in institutions depending on the individual cases. Maintenance in boarding homes or institutions is paid by the Province. The Province does not maintain any reform schools for delinquent children; such children are placed in carefully selected homes under constant supervision and are inspected periodically by Departmental officials.

The education of deaf and blind children is the responsibility of the Department of Education, which maintains children in special schools outside the Province. Grants are made to sight-saving classes and classes for sub-normal children in the larger cities.

Old Age Pensions and Pensions for the Blind.—The Province has been co-operating in the Dominion-Provincial Old Age Pension plan since Aug. 1, 1929, and with the amendment to the Act providing for the payment of pensions to blind persons since Mar. 1, 1938. For statistics, see pp. 229-231.

Mothers' Allowance Branch.—The Mothers' Allowance Act was passed in 1919 and became effective in that year. For statistics, see pp. 226-228.

Homes for Aged or Infirm.—The Homes for the Aged and Infirm Act came into effect on Mar. 28, 1945, and provides for the payment of a grant to municipalities maintaining either aged or infirm residents in licensed homes.

British Columbia.—Welfare services operated by the Province come under the administration of the Social Welfare Branch of the Department of Health and Welfare. Such services include:—

(1) Child Welfare.
(2) Mothers' Allowances.
(3) Social (family and individual) Allowances.
(4) Old Age Pensions.
(5) Provincial Home.
(6) Girls' Industrial School.
(7) Boys' Industrial School.

In British Columbia all social workers—general, medical and psychiatric—are employed by, and come under, the direction of the Social Welfare Branch and are included in the Field Service Division. Social workers are trained to give a generalized service and are required to do case work for all the services mentioned above. In addition, case work is done for mental institutions, tuberculosis hospitals, venereal disease clinics, infirmaries, etc., and for the Federal Departments.

Medical services and prescribed drugs are provided for all types of social welfare cases. In organized municipalities the Province bears half the cost and in unorganized territory the whole cost.

Child Welfare.—The Child Welfare Division of the Social Welfare Branch is responsible for child welfare work and covers the protection of children, adoptions, placements in foster homes, children of unmarried parents, juvenile delinquency, etc. In Vancouver and Victoria the work is carried out in co-operation with Children's Aid Societies but elsewhere all activities are directly administered by the Division.

Mothers' Allowances.—Mothers' allowances are administered by the Social Welfare Branch, the Act being in force since July, 1920. For statistics, see pp. 226-228.

Social Allowances.—Social allowances are administered by the same Branch under the Social Assistance Act that came into force on Apr. 1, 1945. Under this Act provision is made for all those categories not otherwise dealt with. The Province contributes 80 p.c. of the cost for municipal cases.

Old Age Pensions and Pensions for the Blind.—Old age pensions, which have been paid in the Province since Sept. 1, 1927, are administered by a Board under the jurisdiction of the Social Welfare Branch of the Department of Health and Welfare and all social work is done by the Field Service Division of the Social Welfare Branch. Supplementary assistance is also being given to old age pensioners for the protection of their health and comfort. Pensions have been paid to blind persons since Dec. 1, 1937. For statistics, see pp. 229-231.

Provincial Home.—The Social Welfare Branch operates a Provincial Home for the care of aged male persons. Several cities and municipalities also operate homes for the aged.

Industrial Schools.—Industrial schools for boys and girls are operated by the Social Welfare Branch. Social services in cities and municipalities have been amalgamated in order to do away with dual administration and combined services act in close co-operation with the health services.

Workmen's Compensation.—The Workmen's Compensation Act, effective Jan. 1, 1917, provides compulsory accident insurance in almost every industrial occupation carried on in the Province. See Chapter XX on Labour.

Subsection 2.—Rates and Statistics of Mothers' Allowances

All provinces, except Prince Edward Island, provide for allowances to mothers who are widowed or who, for other reasons, are without means of support. Manitoba was the first to enact such legislation in 1916. Five other provinces followed between 1917 and 1920. The Nova Scotia and Quebec Acts came into effect in 1930 and 1938, respectively. A New Brunswick statute of 1930, proclaimed in effect in 1943, was replaced by a new Act in 1944.

Except in Alberta, where 25 p.c. of an allowance is borne by the municipality, the whole cost is provided from provincial funds. In Quebec, not more than 5 p.c. of the amount of the allowances paid may be imposed on municipalities, but no levy has been made under this provision.

Each Act stipulates that an applicant must be a resident of the province and, except in Alberta, have resided there for a certain period. Alberta merely requires that the husband should have had his home in the Province at the time of his death, committal to an institution or desertion of his wife. In New Brunswick an allowance was paid for the child of a member of the Forces during the Second World War if such member resided in the Province when he enlisted and the child was resident there.

Except in Saskatchewan and Alberta, an applicant must be a British subject or the widow or wife of a British subject or her child must be a British subject. In Nova Scotia, the applicant herself must be a British subject. In Quebec, she must have been a British subject for 15 years or by birth. In New Brunswick and Manitoba, the child is eligible if he is a British subject, even if the mother is not. In British Columbia, a woman may be eligible if she is or was a British subject by birth or naturalization.

An applicant must be a widow, or a wife whose husband is mentally incapacitated, or, except in Alberta, permanently disabled. The British Columbia Act specifies a disability which may reasonably be expected to continue for at least one year. In New Brunswick, Nova Scotia and Saskatchewan, a mother is declared eligible if her husband is confined to a sanatorium for tuberculosis or in New Brunswick if discharged and following treatment at home. Foster-mothers caring for children whose parents are dead or disabled are also eligible, except in Nova Scotia and Alberta.

Deserted wives who meet specified conditions are eligible except in Nova Scotia, but the period that must elapse after desertion varies from province to province. Mothers who have been divorced or legally separated from their husbands for two years are eligible in British Columbia, and a mother who is divorced may be paid an allowance in Saskatchewan. In British Columbia and Saskatchewan, the wives of inmates of penal institutions are eligible.

In Nova Scotia, New Brunswick and Saskatchewan, allowances may be paid in respect of a legally adopted child. In Manitoba, Saskatchewan, Alberta and British Columbia, allowances are paid in some cases for children born out of wedlock.

Mothers of one or more children are eligible in New Brunswick, Quebec, Ontario, Saskatchewan, Alberta and British Columbia. In Nova Scotia the mother of one dependent child is eligible if she is incapacitated, if she has residing with her a husband permanently disabled or if the welfare of the one child requires it.

In Manitoba, an only child under 15 years of age is not eligible unless the mother is confined to a hospital for mental diseases or is physically incapacitated, or there is a child 15 years of age or over who is mentally or physically incapacitated.

The age-limit for children is 16, except in Manitoba where it is 14, or over 14 if the child is incapable of self-support. On certain conditions, allowances may be paid in British Columbia for a child between 16 and 18 and also for a child living temporarily apart from its mother. The Alberta Act as amended in 1946 permits payment to children between 16 and 18 years if satisfactory progress is being made at school. In New Brunswick, when a child reaches 16 and is attending school, payments may be continued until the end of the school year; no allowance may be paid for a child not attending school as required by law.

Rates of Allowances.—In Nova Scotia, a maximum of $80 per month per family and in New Brunswick $60 is fixed by Statute, but in other provinces the administrative authority fixes the rate. In Nova Scotia, the monthly amount payable to a mother and one child is determined by family need. In New Brunswick the maximum monthly amount for a mother with one child is $27·50 and $7·50 for each additional child. An extra $7·50 may be paid for rental under special circumstances. Quebec allows $35 monthly to a woman with one dependent child in cities and towns of over 10,000 population; $30 in other localities. An additional one dollar per month is paid to each of the second, third, fourth and fifth children, $2 each to the sixth and seventh and $3 to the eighth and subsequent children. An extra $5 is allowed when the beneficiary is unable to work, or when a disabled husband is living at home. In Ontario, the maximum for a mother and one child is $42 per month in a city, $36 in a town of over 5,000 and $30 in a rural district, with $6 for each additional child. The allowance may be increased by $10 per month per beneficiary where need is evidenced; a winter fuel allowance is also paid according to need. The maximum monthly amount in Manitoba paid to a mother and one enrolled child, excluding winter fuel, is $40 with additional allowances for other children; a disabled father in the home receives $13 maximum monthly. The allowance may be augmented up to $25 where special need is shown but the monthly maximum, excluding winter fuel, to any family with or without father at home is $121. In Saskatchewan, the maximum monthly allowance payable is $10 for a mother, $10 for a disabled father at home, $15 for the first child, $10 for the second and $5 for each succeeding child for a maximum of ten children. The maximum monthly allowance per family is $85. The allowance in Alberta is not to exceed $35 per month for a mother with one child and may rise to a maximum of $100 where there are nine children or more. In British Columbia, the maximum monthly allowance is $42·50 for a mother with one dependent child, $7·50 for each additional child and a further $7·50 for a totally disabled husband living at home. The following table gives statistics for the individual provinces providing mothers' allowances.

5.—Summary Statistics of Mothers' Allowances, 1941-46

Province and Year	Families Assisted	Children Assisted	Benefits Paid
	No.	No.	$
Nova Scotia—[1]			
1941	1,221	3,432	418,286
1942	1,227	3,448	443,164
1943	1,280	3,619	513,303
1944	1,365	3,840	630,723
1945	1,441	4,057	734,828
1946	1,615	4,474	846,964
New Brunswick—[1],[2]			
1945	918	2,624	384,802
1946	1,207	3,308	487,602
Quebec—[3]			
1941	8,116	24,348	2,304,240
1942	9,613	28,839	2,707,291
1943	10,895	32,685	3,231,018
1944	11,973	35,919	3,698,044
1945	13,057	39,396	4,186,308
1946	13,685	41,055	4,664,235
Ontario—[4]			
1941	10,811	27,203	4,665,829
1942	12,448	24,715	4,318,536
1943	10,813	20,932	3,736,276
1944	9,176	18,032	3,750,861
1945	8,540	16,841	3,581,251
1946	8,092	15,976	3,451,309
Manitoba—[3]			
1941	946	2,816	406,340
1942	873	2,644	367,677
1943	741	2,210	335,892
1944	643	1,951	319,016
1945	600	1,843	319,871
1946	613	1,835	354,360
Saskatchewan—[5]			
1941	2,958	7,761	488,701
1942	2,734	7,206	458,775
1943	2,468	5,675	514,491
1944	2,222	5,321	520,272
1945	2,078	4,912	651,723
1946	2,117	4,992	868,403
Alberta—[4]			
1941	2,246	4,579	618,836
1942	2,091	4,281	595,117
1943	1,990	4,009	561,975
1944	1,830	3,918	555,075
1945	1,701	3,562	570,754
1946	1,559	3,275	569,137
British Columbia—[4]			
1941	1,697	3,346	798,097
1942	1,552	3,072	751,835
1943	1,194	2,406	667,213
1944	1,080	2,246	581,541
1945	940	1,966	528,442
1946	905	2,132	498,901

[1] For year ending Oct. 31. [2] Allowances paid since May 1, 1944. [3] For year ending Dec. 31. [4] For year ending Mar. 31. [5] For year ending Apr. 30.

Section 3.—The Dominion Government in Co-operation with the Provinces

Subsection 1.—Old Age Pensions and Pensions for the Blind

Legislation respecting old age pensions (R.S.C., 1927, c. 156) was adopted by the Dominion Parliament in 1927. Under this Act, the Dominion Government paid 50 p.c. of the net cost of all pensions paid under the Act. An amendment passed at the 1931 Session of Parliament (c. 42, Statutes of 1931) provided that the Dominion's share of the net cost of pensions be increased from 50 p.c. to 75 p.c. The Dominion contribution of 75 p.c. was made effective from Nov. 1, 1931; the provinces have since been reimbursed on this basis. By Orders in Council passed under the authority of the War Measures Act, the maximum pension has been increased from $240 to $300 a year and the maximum income (including pension) from $365 to $425 a year.

In the Speech from the Throne on Jan. 20, 1947, and in later statements in the House, the Government announced its intention to introduce amendments to the Old Age Pension Act designed to incorporate permanently into the Act provisions of the wartime Orders in Council referred to above and, in addition, to enlarge the scope of the Act by providing increases to the pensions payable and the income allowable to pensioners and by modifying certain of the eligibility requirements for pension.

In certain provinces old age pensions are augmented by a supplement paid for entirely by the province. In British Columbia the supplementary pension of $5 monthly was increased, in light of the Federal Government's intention, to $10 retroactive to Jan. 1, 1947. In Saskatchewan, the supplementary pension was increased from $3 to $5 at approximately the same time. Alberta continues to pay a $5 monthly supplement. The supplementary allowance in Manitoba is an amount up to $1·25 per month if the pension is less than $21·25 monthly. In Ontario it is 15 p.c. of the pension based on a maximum pension of $20 a month. At the discretion of the pension authority in Nova Scotia, a supplement of $5 monthly may be given if the total income, including pension and supplement, does not exceed $365 annually.

To qualify for an old pension, the applicant must, in addition to proving need, have reached the age of 70 years; he must be a British subject, and must have resided in Canada for the immediately preceding 20 years and in the province in which application is made for the preceeding five years. The new regulations passed by Order in Council, May, 1947, liberalized the means test by providing for a more generous interpretation of income and property qualifications.

By an amendment to the Old Age Pensions Act in 1937, provision was made for the payment of pensions to blind persons over the age of 40 years. The maximum income (including pension) is higher in the case of a blind pensioner than for an old age pensioner. The maximum income in different cases is set forth in the Old Age Pensions Act. Amendments made under the War Measures Act apply to blind pensioners who also receive provincial supplements corresponding to those mentioned above for old age pensioners.

The Dominion Old Age Pensions Act is now operative in all provinces and in the Northwest Territories. In 1945 administration of the Act was transferred from the Department of Finance to the Department of National Health and Welfare.

6.—Old Age Pensions Statistics, Years Ended Mar. 31, 1943-47

Province and Date Effective	Year Ended Mar. 31-	Average Monthly Pension	Pensioners	Percentage of Pensioners to Population[1]	Percentage of Persons Age 70 or Over to Population[1]	Percentage of Pensioners to Population Age 70 or Over[1]	Dominion Government's Contribution for Fiscal Year
		$	No.	p.c.	p.c.	p.c.	$
Prince Edward Island........	1943	13·48	1,904	1·98	6·25	31·73	208,587
(Act effective July 1, 1933)	1944	18·53	1,888	2·07	6·59	31·47	268,515
	1945	18·63	1,884	2·07	6·59	31·40	311,583
	1946	18·99	1,980	2·15	6·52	33·00	322,441
	1947	19·36	2,112	2·25	6·38	35·20	350,808
Nova Scotia.................	1943	15·65	14,080	2·40	5·11	46·93	1,948,075
(Act effective Mar. 1, 1934)	1944	18·06	13,838	2·28	5·11	44·64	2,137,242
	1945	22·50	14,032	2·29	5·23	43·85	2,807,890
	1946	22·62	14,771	2·38	5·15	46·16	2,913,972
	1947	22·76	15,403	2·52	5·39	46·68	3,093,204
New Brunswick..............	1943	15·27	11,818	2·54	4·52	56·28	1,606,403
(Act effective July 1, 1936)	1944	17·69	11,843	2·56	4·54	56·40	1,732,670
	1945	22·13	12,269	2·66	4·55	58·42	2,390,978
	1946	22·40	12,663	2·71	4·49	60·30	2,498,871
	1947	22·68	13,360	2·78	4·58	60·73	2,649,020
Quebec......................	1943	17·20	47,045	1·39	3·13	44·38	7,048,885
(Act effective Aug. 1, 1936)	1944	22·54	47,153	1·36	3·18	42·87	8,535,363
	1945	23·95	49,289	1·41	3·20	44·01	10,386,115
	1946	23·91	51,567	1·45	3·23	44·84	10,823,345
	1947	24·01	54,489	1·50	3·28	45·79	11,466,940
Ontario......................	1943	18·86	57,692	1·51	4·89	30·85	9,633,658
(Act effective Nov. 1, 1929)	1944	23·09	56,156	1·43	4·90	29·25	10,310,622
	1945	24·13	58,113	1·47	4·99	29·35	12,291,117
	1946	24·48	60,831	1·52	5·02	30·26	13,129,816
	1947	24·52	65,085	1·58	5·06	31·29	13,886,364
Manitoba....................	1943	18·78	12,498	1·69	3·79	44·64	2,093,380
(Act effective Sept. 1, 1928)	1944	23·41	12,188	1·68	3·99	42·03	2,002,573[2]
	1945	24·48	12,324	1·68	4·10	41·08	2,879,948[2]
	1946	24·54	12,981	1·76	4·08	43·27	2,684,083
	1947	24·53	13,583	1·87	4·26	43·82	2,826,747
Saskatchewan...............	1943	17·53	13,074	1·44	2·98	48·42	2,043,410
(Act effective May 1, 1928)	1944	23·00	12,755	1·51	3·33	45·55	2,352,407
	1945	24·68	12,827	1·52	3·43	44·23	2,794,903
	1946	24·55	13,398	1·59	3·55	44·66	2,903,020
	1947	24·37	14,204	1·71	3·86	44·39	3,085,226
Alberta......................	1943	18·69	11,134	1·38	2·98	46·39	1,833,574
(Act effective Aug. 1, 1929)	1944	22·82	11,071	1·40	3·16	44·28	2,062,796
	1945	24·16	11,418	1·40	3·06	45·67	2,401,386
	1946	24·12	12,098	1·46	3·39	43·21	2,526,215
	1947	24·11	12,738	1·59	3·63	43·92	2,699,425
British Columbia............	1943	19·28	14,348	1·74	4·85	35·87	2,443,153
(Act effective Sept. 1, 1927)	1944	23·55	14,481	1·61	4·67	34·48	2,791,031
	1945	24·41	15,344	1·65	4·94	33·36	3,236,034
	1946	24·34	16,637	1·75	4·95	35·40	3,485,885
	1947	24·22	18,039	1·80	5·08	35·37	3,767,623
Northwest Territories........	1943	20·00	8	0·07	1·65	4·00	2,061
(Order in Council effective	1944	24·55	11	0·09	1·61	5·70	2,373
Jan. 25, 1929)	1945	24·17	12	0·10	1·52	6·56	3,074
	1946	24·33	15	0·12	1·52	8·20	3,579
	1947	24·69	16	0·13	1·52	8·74	4,222
Canada (excluding Yukon).	**1943**	**17·82**	**183,601**	**1·58**	**4·03**	**39·11**	**28,861,186**
	1944	**22·20**	**181,384**	**1·54**	**4·10**	**37·44**	**32,195,592**
	1945	**23·86**	**187,512**	**1·57**	**4·17**	**37·54**	**39,503,028**
	1946	**23·98**	**196,941**	**1·63**	**4·21**	**38·58**	**41,291,227**
	1947	**24·03**	**209,029**	**1·70**	**4·31**	**39·39**	**43,829,580**

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[1] In calculating percentages as of Mar. 31, the population figure used was that of the preceding June, as shown at p. 140. [2] $288,541 for fiscal year 1943-44 charged to fiscal year 1944-45.

7.—Statistics of Pensions for Blind Persons, Years Ended Mar. 31, 1943-47

Province and Date Effective	Year Ended Mar. 31-	Average Monthly Pension	Blind Pensioners	Percentage of Blind Pensioners to Population[1]	Dominion Government's Contribution for Fiscal Year
		$	No.	p.c.	$
Prince Edward Island	1943	16·14	116	0·121	15,249
(Act effective Dec. 1, 1937)	1944	22·41	111	0·122	19,545
	1945	22·40	110	0·121	22,012
	1946	22·33	119	0·129	22,795
	1947	22·84	121	0·129	24,211
Nova Scotia	1943	19·22	620	0·106	107,397
(Act effective Oct. 1, 1937)	1944	21·21	633	0·104	114,043
	1945	24·23	640	0·105	140,039
	1946	24·19	664	0·107	142,672
	1947	24·25	685	0·112	147,486
New Brunswick	1943	19·67	722	0·155	129,585
(Act effective Sept. 1, 1937)	1944	23·28	710	0·153	136,447
	1945	24·54	736	0·159	161,588
	1946	24·65	737	0·157	161,978
	1947	24·65	758	0·158	166,414
Quebec	1943	19·61	2,173	0·064	379,129
(Act effective Oct. 1, 1937)	1944	24·37	2,250	0·065	452,061
	1945	24·74	2,425	0·069	530,169
	1946	24·73	2,568	0·072	568,428
	1947	24·73	2,709	0·075	605,761
Ontario	1943	19·70	1,502	0·039	266,354
(Act effective Sept. 1, 1937)	1944	24·19	1,449	0·037	283,956
	1945	24·73	1,488	0·038	331,210
	1946	24·72	1,543	0·039	341,574
	1947	24·71	1,623	0·040	359,860
Manitoba	1943	19·72	348	0·047	59,753
(Act effective Sept. 1, 1937)	1944	24·22	339	0·047	60,199[2]
	1945	24·69	348	0·048	85,130[2]
	1946	24·84	365	0·050	79,473
	1947	24·71	391	0·054	86,625
Saskatchewan	1943	19·86	320	0·035	58,030
(Act effective Nov. 15, 1937)	1944	24·54	317	0·038	64,035
	1945	24·94	333	0·039	74,239
	1946	24·74	340	0·040	76,836
	1947	24·83	363	0·044	81,939
Alberta	1943	19·76	239	0·030	40,969
(Act effective Mar. 7, 1938)	1944	24·15	242	0·031	47,914
	1945	24·53	247	0·030	54,289
	1946	24·51	269	0·033	57,550
	1947	24·51	290	0·036	62,155
British Columbia	1943	19·42	334	0·040	58,363
(Act effective Dec. 1, 1937)	1944	24·19	323	0·036	65,829
	1945	24·75	336	0·036	73,302
	1946	24·59	340	0·036	75,441
	1947	24·59	370	0·037	80,435
Canada[3]	**1943**	**19·55**	**6,374**	**0·055**	**1,114,828**
	1944	**23·84**	**6,374**	**0·054**	**1,244,030**
	1945	**24·63**	**6,663**	**0·056**	**1,471,978**
	1946	**24·62**	**6,945**	**0·057**	**1,526,747**
	1947	**24·63**	**7,311**	**0·059**	**1,615,136**

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[1] In calculating percentages as of Mar. 31, the population figure used was that of the preceding June, as given at p. 140. [2] $8,286 for fiscal year 1943–44 charged to fiscal year 1944–45. [3] Previous to 1947 no pensions were paid in Yukon or the Northwest Territories; in 1947, one pension of $25 monthly was paid in the Northwest Territories, for which the Dominion Government's contribution was $250.

Subsection 2.—The National Physical Fitness Program

The National Physical Fitness Act (c. 29, 1943) came into force by proclamation on Oct. 1, 1943, and by Orders in Council 509 of Feb. 15, 1944 and 1394 of Mar. 2, 1944. It is administered by the Physical Fitness Division of the Welfare Branch of the Department of National Health and Welfare.

Under the terms of the Act, Parliament makes available to the provinces, on a per capita basis, an amount not exceeding $225,000 annually for the promotion of physical fitness and recreational projects. Financial assistance is given only to those provinces that have signed specific agreements with the Dominion Government as provided in the Act. At present, the participating provinces and the maximum amounts available for annual grants from the National Physical Fitness Fund are: Prince Edward Island, $1,861; Nova Scotia, $11,318; Manitoba, $14,290; Saskatchewan, $17,546; Alberta, $15,591; and British Columbia, $16,016. In the event that a province's expenditures for physical fitness fall below the maximum Federal contribution, that contribution matches only the actual provincial outlay. In some of the participating provinces the program is administered by the Provincial Department of Health, in others by the Department of Education.

The actual carrying out of physical fitness and recreational projects is a provincial and community responsibility. The office of the Physical Fitness Division at Ottawa acts as a clearing house among the provinces for the latest information about physical fitness, recreation, physical education, community centres, sports and allied activities. It keeps in touch with the latest developments abroad and circulates reports on them. It has begun publication of a distinctively Canadian series of pamphlets designed to cover a wide range of sports, recreational activities and kindred subjects. In co-operation with the National Film Board, it is developing a recreational and sports preview film library to ensure that accurate and up-to-date films, both of Canadian origin and from abroad, will be brought to the attention of groups and individuals desiring to purchase films for use in their respective provinces and also for distribution through regular film-lending agencies. The Division is also building up a reference library of printed materials with a view to providing resource and reference information. It has interested itself in the Wetzel Grid as a basis of classification for activity, and for achievement tests relating to sports and games. Research is being carried on regarding the possibility of using such information to determine the relationship between individual performance ability and the level of physical development attained (determined on a height, weight, age, and type-of-physique basis). It has worked with the Dominion Departments of Labour and Veterans Affairs in the preparation of a course of study for community recreation leaders under the Vocational Training Plan. In addition, the Division has co-operated with educational leaders in the preparation of a suggested university curriculum for a degree course in health, physical education and recreation. Other divisions or departments of Government working in related fields use its consultative services, as do large numbers of individuals and organizations desiring information and advice.

The Act provides for the appointment by the Governor in Council of a National Council on Physical Fitness (composed of not fewer than three and not more than ten members) of which the National Director of Physical Fitness is chairman. The Provinces are represented on the present Council either by their Provincial Directors of Physical Fitness, or by representatives from their Provincial Departments of Health or Education, or by persons closely associated with recreation.

The Council meets semi-annually to discuss the general, national aspects of physical fitness, to receive briefs and submissions presented by interested private agencies, and to advise the Minister of National Health and Welfare on aspects of the Physical Fitness Program. In some provinces, provincial physical fitness and cultural councils function on lines comparable to those of the National Council.

Section 4.—Care of Dependent and Handicapped Groups*

This series of data from the Census of Institutions is made available quinquennially. Detailed statistics of charitable and benevolent institutions in Canada as reported for the 1941 Census appear at pp. 677-682 of the 1943-44 Year Book. Compilations from the 1946 Census of Institutions are not yet completed, but the summary table below gives preliminary figures of these institutions as of June 1, 1946.

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* Prepared under the direction of J. T. Marshall, Director, Vital Statistics Division, Dominion Bureau of Statistics, by J. C. Brady, Chief, Institutions Statistics.

8.—Summary Statistics of Charitable and Benevolent Institutions, by Provinces, as at June 1, 1946

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No	No.	No.	No.
Homes for Adults—										
Institutions	1	15	9	42	42	8	8	6	10	141
Bed capacity	105	1,075	396	4,215	3,508	737	324	240	478	11,078
Personnel	22	153	51	1,041	581	162	52	57	85	2,204
Under care June 1, 1946	114	1,134	415	5,840	5,176	1,085	465	369	549	15,147
Homes for Adults and Children—										
Institutions	Nil	6	5	51	12	2	Nil	2	5	83
Bed capacity	"	417	482	8,021	810	181	"	379	233	10,523
Personnel	"	63	103	1,938	185	44	"	53	39	2,425
Under care June 1, 1946	"	617	715	10,618	2,228	317	"	593	663	15,751
Orphanages—										
Institutions	1	8	5	43	20	7	3	3	4	94
Bed capacity	102	647	446	8,628	1,742	306	319	210	437	12,837
Personnel	14	117	75	1,739	296	71	49	29	59	2,449
Under care June 1, 1946	63	730	673	12,068	2,689	592	345	338	415	17,913
Day Nurseries—										
Institutions	Nil	1	Nil	Nil	9	2	Nil	2	Nil	14
Bed capacity	"	Nil	"	"	Nil	Nil	"	36	"	36
Personnel	"	7	"	"	81	14	"	17	"	119
Under care June 1, 1946	"	15	"	"	462	74	"	79	"	630
Children's Aid Societies—										
Institutions	Nil	5	2	Nil	17	3	4	Nil	1	32
Bed capacity	"	Nil	14	"	200	24	98	"	24	360
Personnel	"	13	8	"	138	54	53	"	12	278
Under care June 1, 1946	"	601	229	"	5,351	977	687	"	236	8,081
County Homes—										
Institutions	Nil	2	Nil	Nil	23	Nil	Nil	Nil	Nil	25
Bed capacity	"	257	"	"	1,969	"	"	"	"	2,226
Personnel	"	28	"	"	184	"	"	"	"	212
Under care June 1, 1946	"	289	"	"	2,131	"	"	"	"	2,420
Child Welfare—										
Institutions	Nil	Nil	Nil	Nil	2	Nil	Nil	Nil	Nil	2
Bed capacity	"	"	"	"	Nil	"	"	"	"	Nil
Personnel	"	"	"	"	25	"	"	"	"	25
Under care June 1, 1946	"	"	"	"	854	"	"	"	"	854

CHAPTER IX.—CRIME AND DELINQUENCY*

CONSPECTUS

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Canadian Criminal Law and Procedure.—A review of the development of the Criminal Code in Canada is given at pp. 1085-1087 of the 1934-35 edition of the Year Book; it includes a résumé of procedure and an account of the jurisdiction of the various classes of judges and magistrates.

The statistics presented in this Chapter are summarized from the "Annual Report of Statistics of Criminal and Other Offences", and are collected directly from the criminal courts in the different judicial districts throughout the Dominion. There are 159 judicial districts, including 2 sub-districts, divided by provinces as follows: Prince Edward Island 3, Nova Scotia 18, New Brunswick 15, Quebec 26, Ontario 48, Manitoba 6, Saskatchewan 21, Alberta 12, British Columbia 8, Yukon 1, and the Northwest Territories 1.

Crime is divided into two definite classes, criminal or 'indictable' offences, which include all serious crimes covered by the Criminal Code (see pp. 237-238), and summary or 'non-indictable' offences, which comprise less serious crimes and breaches of municipal by-laws (see p. 243). Indictable offences consist of all cases proceeded against by the higher Courts of Justice—those triable before a Supreme Court Judge with jury and those triable by Judges under the Speedy Trials Act and Summary Trials Act. The more serious crimes only, such as murder, manslaughter, and robbery with violence, are triable by a Supreme Court Judge with jury, without election of the accused. Lesser indictable offences are tried by County Judges with a jury, or "Speedy Trial" (trial by Judge without jury, by election of the accused). Non-indictable offences, breaches of municipal by-laws, traffic laws, etc., are usually dealt with summarily by Police Magistrates or other Justices and Recorders under the Summary Convictions Act.

Heretofore, the presentation of judicial statistics in this Chapter has opened with a general analysis of combined adult and juvenile crime. This year the two classes have been considered separately for the following reasons. Offences of young people under the age of 16, especially minor offences, are of a different nature from those committed by adults and to combine them with non-indictable crimes does not give a comprehensive picture of the trend of crime throughout the country. One class is apt to over-balance the other and give a distorted view. Furthermore, the disposition of adult cases is totally unlike the disposition and treatment of juvenile offenders so that, here again, the logical treatment is two separate analyses. This does not prevent those who wish to pursue the method of comparison used in previous editions of the Year Book from doing so as the combination of tables is still possible.

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* Except as otherwise indicated, this Chapter has been revised under the direction of J. T. Marshall, Director, Vital Statistics Division, Dominion Bureau of Statistics, by Miss R. Harvey, Chief, Judicial Statistics Branch. The 70th "Annual Report of Statistics of Criminal and Other Offences", for the year ended Sept. 30, 1945, is obtainable from the Dominion Bureau of Statistics, Price 50 cents.

PART I.—CRIME OF ADULTS*

Section 1.—Total Offences

After the First World War, there was a gradual increase in crime. This is a common experience, especially in the non-indictable class of offences, when men who have been under arms for several years are rapidly demobilized. The latest year for which data can be given is 1945, but the really significant period will be the years immediately following the close of the War. There is some reason to believe that the same pattern as was in evidence after the First World War is being followed.

During 1945 there were 504,181 cases of adult offenders handled by the courts as compared with 479,351 cases in 1944. Of this total 48,263 charges were of an indictable nature while 455,918 were non-indictable. The corresponding figures

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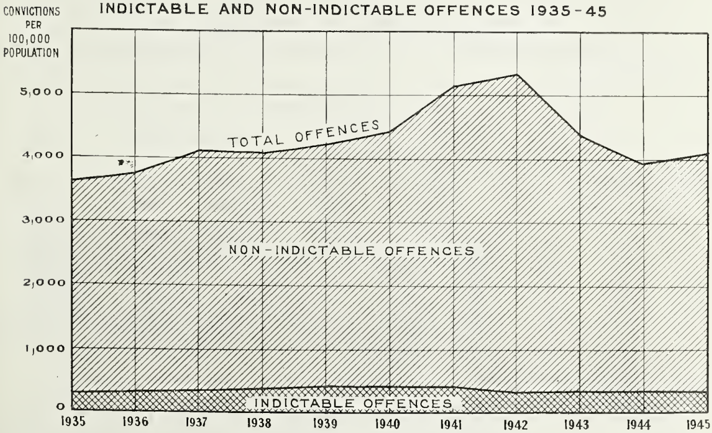
* Persons 16 years of age or over.

ADULT CONVICTIONS PER 100,000 POPULATION
FOR
INDICTABLE AND NON-INDICTABLE OFFENCES 1935-45



for 1944 were 48,624 indictable and 430,727 for non-indictable crimes. The total convictions in 1945 numbered 497,883 an increase of 5·2 p.c. as compared with 1944.

ADULT CONVICTIONS PER 100,000 POPULATION

Post-War Period	*Indictable*	*Non-indictable*	*Total*
First World War—			
1917	193	1,221	1,414
1918	213	1,300	1,513
1919	222	1,343	1,565
1920	215	1,684	1,899
1921	221	1,795	2,016
Second World War—			
1944	355	3,597	3,952
1945	346	3,762	4,108

Ontario led the provinces in total convictions per 100,000 population during 1945, the ratio being 5,669. Quebec was second with 4,723, and Manitoba third with 3,443, the same order as that of the previous year. The figures for the other provinces follow: British Columbia, 2,778; Yukon and the Northwest Territories, 2,571; New Brunswick, 2,365; Nova Scotia, 1,917; Alberta, 1,789; Prince Edward Island, 1,766, and Saskatchewan, 1,325.

The most significant figures are those of convictions for the more serious crimes—offences against the person and offences against property with violence. These increased from 1944 to 1945 by 12 p.c. and 0·1 p.c., respectively, although the total number of indictable convictions showed a decrease of 1·3 p.c. in the same comparison.

In 1945 non-indictable crime increased for two-thirds of the classes shown in Table **12**. In connection with these increases it should be remembered that, while the Criminal Code undergoes little change over a period of time, the figures for summary convictions are greatly influenced by the customs of the people and show a tendency to fluctuate as municipal regulations are more strictly enforced or allowed to lapse.

1.—Total Convictions of Adults, Classified by Indictable and Non-Indictable Offences, Years Ended Sept. 30, 1941-45

NOTE.—Classification of indictable crimes is given in Table 3, p. 237, and of non-indictable crimes in Table 12, p. 243.

Class of Offence	TOTAL NUMBER OF CONVICTIONS				
	1941	1942	1943	1944	1945
Indictable offences	42,646	39,309	41,752	42,511	41,965
Non-indictable offences	547,556	581,364	465,315	430,727	455,918
Totals	**590,202**	**620,673**	**507,067**	**473,238**	**497,883**

Class of Offence	PERCENTAGE OF TOTALS AND PER 100,000 POPULATION									
	1941		1942		1943		1944		1945	
	P.C. of Total	Per 100,000 Pop.	P.C. of Total	Per 100,000 Pop.	P.C. of Total	Per 100,000 Pop.	P.C. of Total	Per 100,000 Pop.	P.C. of Total	Per 100,000 Pop.
Indictable offences	7·2	371	6·3	337	8·2	354	9·0	355	8·4	346
Non-indictable offences	92·8	4,758	93·7	4,989	91·8	3,939	91·0	3,597	91·6	3,762
Totals	**100·0**	**5,129**	**100·0**	**5,326**	**100·0**	**4,293**	**100·0**	**3,952**	**100·0**	**4,108**

Subsection 1.—Indictable Offences

The progress of a community, from a moral point of view, is often judged by the number of convictions for indictable offences, as these are less affected than non-indictable offences by extraneous circumstances and the varying methods of law enforcement in different areas and in different years. However, in the study of such statistics it is important to have comparable figures over a period of years. Table 2, along with the figures published in earlier editions of the Year Book (see headnote to table), provides the necessary background.

In 1935 the total number of convictions for indictable crimes was 33,531; in 1945 they had increased to 41,965 or by 25·2 p.c. The increase in the population during the same period was 11·7 p.c.

2.—Convictions of Adults for Indictable Offences, by Provinces, Years Ended Sept. 30, 1936-45

NOTE.—Figures for 1900-20 are given at p. 1016 of the 1933 Year Book, for 1921-30 at p. 908 of the 1942 edition and for 1931-35 at p. 1108 of the 1946 edition.

Year	P.E.I	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936....	75	1,147	744	9,497	13,594	2,631	2,194	3,138	3,021	8	10	36,059
1937....	98	1,081	759	7,781	14,569	2,839	3,083	3,589	3,331	8	10	37,148
1938....	225	1,269	912	10,277	17,248	3,041	2,555	3,619	4,443	7	3	43,599
1939....	268	1,635	1,107	10,804	19,804	3,220	3,450	4,087	3,701	7	24	48,107
1940....	251	1,573	1,131	12,152	17,558	3,353	2,886	4,411	3,392	3	13	46,723
1941....	207	1,675	1,185	11,514	15,861	2,811	3,106	3,263	2,996	6	22	42,646
1942....	205	1,646	1,063	10,269	15,070	2,419	2,621	3,193	2,792	5	26	39,309
1943....	174	1,725	1,211	11,669	16,779	2,060	2,213	2,787	3,092	22	20	41,752
1944....	262	1,782	1,310	10,386	17,613	2,420	2,074	3,164	3,418	71	11	42,511
1945....	231	2,116	1,248	9,592	17,287	2,517	2,204	3,201	3,480	84	5	41,965

3.—Indictable Offences of Adults, by Classes, Years Ended Sept. 30, 1944 and 1945

Class and Offence	1944		1945		Increase or Decrease in Convictions
	Charges	Convictions	Charges	Convictions	
	No.	No.	No.	No.	p.c.
Class I.—Offences Against the Person—					
Abduction	42	30	17	9	−70·0
Assault, common and aggravated	5,276	4,183	5,988	4,814	+15·1
Offences against females[1]	1,097	795	1,151	817	+2·8
Manslaughter and murder	140	58	137	59	+1·7
Attempted murder; shooting and wounding	119	99	132	91	−8·1
Non-support, desertion	410	255	404	290	+13·7
Other offences against the person	151	129	145	117	−9·3
Totals, Class I	**7,235**	**5,549**	**7,974**	**6,197**	+11·7

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[1] Offences against females include the following crimes: abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

3.—Indictable Offences of Adults, by Classes, Years Ended Sept. 30, 1944 and 1945— concluded

Class and Offence	1944		1945		Increase or Decrease in Convictions
	Charges	Convictions	Charges	Convictions	
	No.	No.	No.	No.	p.c.
Class II.—Offences Against Property With Violence—					
Burglary and robbery	5,883	5,291	6,089	5,297	+0·1
Totals, Class II	**5,883**	**5,291**	**6,089**	**5,297**	**+0·1**
Class III.—Offences Against Property Without Violence—					
Fraud, embezzlement and false pretences	2,114	1,877	2,127	1,896	+1·0
Receiving stolen goods	2,019	1,460	1,895	1,376	−6·1
Theft	14,204	12,565	13,956	12,280	−2·3
Totals, Class III	**18,337**	**15,902**	**17,978**	**15,552**	**−2·2**
Class IV.—Malicious Offences Against Property—					
Arson	56	38	76	56	+47·4
Malicious damage to property	969	805	1,033	888	+10·3
Totals, Class IV	**1,025**	**843**	**1,109**	**944**	**+12·0**
Class V.—Forgery and Other Offences Against the Currency—					
Offences against currency	3	2	3	3	+50·0
Forgery and uttering forged documents	985	932	1,049	982	+5·4
Totals, Class V	**988**	**934**	**1,052**	**985**	**+5·5**
Class VI.—Other Offences Not Included in the Foregoing Classes—					
Dangerous or reckless driving	1,464	1,273	1,536	1,356	+6·5
Defence of Canada Regulations	546	488	438	421	−13·7
Driving car while drunk	1,310	1,155	1,441	1,269	+9·9
Gambling and lotteries	2,543	2,470	2,206	2,171	−12·1
Keeping bawdy houses and inmates	1,627	1,546	579	562	−63·6
Various other offences	7,666	7,060	7,861	7,211	+2·1
Totals, Class VI	**15,156**	**13,992**	**14,061**	**12,990**	**−7·2**
Grand Totals	**48,624**	**42,511**	**48,263**	**41,965**	**−1·3**

Theft, burglary (house- and shop-breaking), gambling and lotteries, and common assault account for the highest percentages of convictions for indictable offences in 1945. Theft, including theft of automobiles, comprised 29·3 p.c. of all indictable crimes. Crimes against the person, which represented 14·8 p.c. of all indictable offences, showed a gain of 11·7 p.c. over 1944.

Analyses of Convictions for Indictable Offences.—Table 4 shows that 82 p.c. of those convicted of indictable crimes in 1945 had not gone beyond elementary school grades; that 25·5 p.c. of the crimes were committed by youths between the ages of 16 and 21 years and that approximately 82 p.c. of those convicted were dwellers in urban districts.

4.—Convictions for Indictable Offences, Classified by Occupation, Conjugal Condition, Birthplace, Religion, etc., of Person Convicted, Years Ended Sept. 30, 1941-45

Item	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
Type of Occupation—					
Agriculture	3,372	2,891	2,706	2,917	2,491
Armed Services	1,692	2,468	2,414	2,334	2,036
Clerical	1,935	1,549	1,176	1,142	1,031
Electric light and power	101	84	100	126	161
Entertainment and sport	146	89	84	43	81
Finance and insurance	127	41	97	69	49
Fishing and trapping	279	313	231	262	298
Labour	13,708	11,668	12,967	14,909	15,190
Laundry and cleaning	857	291	265	165	88
Lumbering	177	187	173	302	304
Manufacturing and construction	3,447	3,586	4,395	4,584	4,585
Mining	675	674	601	621	584
Service—					
Domestic	4,752	4,591	4,585	2,635	1,736
Personal	1,004	1,004	986	928	1,057
Professional	317	252	224	265	187
Public	71	130	145	114	101
Student	753	567	658	782	711
Trade	3,239	3,262	3,400	3,890	4,307
Transportation	1,740	1,949	2,222	2,555	2,935
Unemployed and retired	2,129	918	969	1,327	1,249
Not given	2,125	2,795	3,354	2,541	2,784
Totals	**42,646**	**39,309**	**41,752**	**42,511**	**41,965**
Conjugal Condition—					
Single	22,993	21,390	22,767	23,670	21,928
Married	16,795	14,615	14,868	15,852	16,478
Widowed	709	495	590	402	491
Divorced	26	42	62	40	37
Not given	2,123	2,767	3,465	2,547	3,031
Educational Status—					
Unable to read or write	319	251	208	319	514
Elementary	39,952	36,066	37,989	36,681	33,922
High school	[1]	[1]	[1]	2,767	4,495
Superior	462	339	316	438	268
Not given	1,913	2,653	3,239	2,306	2,766
Age—					
16 years and under 21	8,580	8,468	10,055	11,430	10,690
21 years and under 40	21,713	19,423	19,452	19,808	19,091
40 years or over	9,825	8,563	8,544	8,390	8,486
Not given	2,528	2,855	3,701	2,883	3,698
Birthplace—					
Canada	33,204	30,700	33,063	34,498	34,079
England and Wales	1,137	1,129	1,106	957	726
Ireland	244	253	230	283	264
Scotland	487	497	459	413	405
Other British possessions	99	84	75	78	106
United States	912	733	665	680	633
Other foreign countries	4,637	3,363	3,170	3,278	3,105
Not given	1,926	2,550	2,984	2,324	2,647
Religion—					
Anglican	3,784	3,846	3,753	3,920	3,910
Baptist	838	719	782	839	828
Jewish	473	517	626	668	667
Presbyterian	2,162	1,941	1,908	1,985	1,751
Protestant	4,523	3,800	4,684	5,419	5,658
Roman Catholic	19,325	18,191	19,431	19,682	18,712
United Church	4,372	4,099	4,243	3,976	4,072
Other denominations	4,517	3,221	2,730	3,089	2,908
No religion	345	175	156	199	185
Not given	2,307	2,800	3,439	2,734	3,274
Residence—					
Urban centres	32,775	30,736	34,486	34,063	34,465
Rural districts	9,871	8,573	7,266	8,448	7,500

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[1] Included with "Elementary" prior to 1944.

Multiple Convictions.—The total number of convictions for any one year must not be confused with the total number of persons convicted for the same period since a number of persons tried for indictable offences have been convicted for more than one offence at the same trial. The trend of such multiple convictions is of value to students of sociology.

5.—Persons Convicted of More than One Offence at the Time of Trial Compared with Persons Convicted of One Offence, Years Ended Sept. 30, 1941-45

Persons Convicted of—	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
2 offences	1,850	1,838	2,330	2,248	2,155
3 “	554	453	590	617	597
4 “	235	222	249	261	293
5 “	135	130	132	134	136
6 “	96	81	101	103	112
7 “	43	55	36	55	60
8 “	41	49	37	50	33
9 “	31	26	19	22	34
10 “	20	22	16	20	17
11 to 20 offences	56	74	60	47	50
21 offences or over	18	15	11	11	11
Totals, Convicted of More than One Offence	3,079	2,965	3,581	3,568	3,498
Totals, Convicted of One Offence	32,692	29,340	31,019	31,716	31,097
Grand Totals	**35,771**	**32,305**	**34,600**	**35,284**	**34,595**

Convictions of Females.—Although the number of convictions against men has gradually increased since 1942, those against women have declined considerably since 1943. The number in 1945 was 3,275 or just over one-half of the 1943 figure of 6,132. It is this decrease that offsets the male increase in 1945, resulting in a more favourable total of all adult convictions for indictable crimes as compared with the previous year. The sharp reduction in female convictions in 1945 is mainly accounted for by the fact that, in 1944, the city of Montreal conducted a campaign against houses of ill repute. Decreases in convictions of females for indictable offences were shown in all provinces except Ontario, Saskatchewan, Alberta, and Yukon and the Northwest Territories.

6.—Convictions of Females for Indictable Offences, by Provinces, Years Ended Sept. 30, 1941-45

Province or Territory	Numbers of Convictions					Percentages of Females Convicted to Totals Convicted				
	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
Prince Edward Island	19	23	15	20	12	9·2	11·2	8·6	7·6	5·2
Nova Scotia	80	108	100	94	89	4·8	6·6	5·8	5·3	4·2
New Brunswick	72	82	83	126	75	6·1	7·7	6·9	9·6	6·0
Quebec	3,573	3,313	3,422	1,574	783	31·0	32·3	29·4	15·2	8·2
Ontario	1,303	1,183	1,463	1,251	1,296	8·2	7·9	8·7	7·1	7·5
Manitoba	288	312	246	241	199	10·2	12·9	11·9	10·2	7·9
Saskatchewan	299	305	188	166	168	9·6	11·6	8·5	8·0	7·6
Alberta	251	267	253	258	281	7·7	8·4	9·1	8·2	8·8
British Columbia	332	298	361	372	369	11·1	10·7	11·7	10·9	10·6
Yukon and N.W.T.	Nil	3	1	2	3	–	9·7	2·4	2·4	3·4
Canada	**6,217**	**5,894**	**6,132**	**4,104**	**3,275**	**14·6**	**15·0**	**14·7**	**9·7**	**7·8**

Recidivism.—The percentage of repeaters, approximately one in every three convicted persons, has remained relatively the same during the past five years with a slight improvement in 1944 and 1945. Of total offenders, 31·3 p.c. had lapsed into crime in 1945 after a first conviction.

7.—First Offences, Second Offences, and Reiterated Offences of an Indictable Nature, Years Ended Sept. 30, 1941-45

Class of Offence	Numbers of Convictions					Percentages of First, Second, etc. Convictions to Totals				
	1941	1942	1943	1944	1945	1941	1942	1943	1944	1945
First	27,826	26,212	27,716	29,016	28,832	65·25	66·68	66·38	68·25	68·70
Second	4,257	3,769	4,173	4,437	4,322	9·98	9·59	9·99	10·44	10·30
Reiterated	10,563	9,328	9,863	9,058	8,811	24·77	23·73	23·63	21·31	21·00
Totals	**42,646**	**39,309**	**41,752**	**42,511**	**41,965**	**100·00**	**100·00**	**100·00**	**100·00**	**100·00**

Acquittals in Relation to Convictions.—The ratio of acquittals to convictions for indictable offences averages about 13 p.c. The percentages vary greatly as between provinces in different years.

8.—Charges, Acquittals, Convictions and Sentences Respecting Indictable Offences, Years Ended Sept. 30, 1941-45

Item	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
Charges	49,026	45,283	47,420	48,624	48,263
Acquittals	6,333	5,934	5,633	6,072	6,257
Persons detained for insanity	47	40	35	41	41
Convictions	42,646	39,309	41,752	42,511	41,965
Males	*36,429*	*33,415*	*35,620*	*38,407*	*38,690*
Females	*6,217*	*5,894*	*6,132*	*4,104*	*3,275*
First convictions	27,826	26,212	27,716	29,016	28,832
Second convictions	4,257	3,769	4,173	4,437	4,322
Reiterated convictions	10,563	9,328	9,863	9,058	8,811
Sentences—					
Option of a fine	16,828	15,573	17,789	17,367	16,900
Under one year in gaol	12,354	11,139	10,735	11,134	11,189
One year or over in gaol	1,578	1,516	1,587	1,569	1,664
Two years and under five in penitentiary	2,119	2,173	2,532	2,594	2,389
Five years or over in penitentiary	459	347	356	426	559
For life in penitentiary	7	1	3	6	2
Death	13	15	9	14	17
Committed to reformatories	2,596	2,241	2,614	3,038	2,912
Other sentences	6,692	6,304	6,127	6,363	6,333

9.—Charges, Convictions, and Percentages of Acquittals Respecting Indictable Offences, by Provinces, Years Ended Sept. 30, 1944 and 1945

Province or Territory	1944			1945		
	Charges	Convictions	Acquittals	Charges	Convictions	Acquittals
	No.	No.	p.c.	No.	No.	p.c.
Prince Edward Island	275	262	4·7	241	231	4·1
Nova Scotia	2,129	1,782	16·3	2,406	2,116	12·1
New Brunswick	1,361	1,310	3·7	1,309	1,248	4·7
Quebec	11,468	10,386	9·4	10,718	9,592	10·5
Ontario	20,973	17,613	16·0	20,863	17,287	17·1
Manitoba	2,715	2,420	10·9	2,760	2,517	8·8
Saskatchewan	2,228	2,074	6·9	2,388	2,204	7·7
Alberta	3,494	3,164	9·4	3,573	3,201	10·4
British Columbia	3,882	3,418	12·0	3,915	3,480	11·1
Yukon and N.W.T.	99	82	17·2	90	89	1·1
Canada	**48,624**	**42,511**	**12·6**	**48,263**	**41,965**	**13·0**

10.—Sentences for Indictable Offences, by Provinces, 1945

Sentence	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Option of fine	128	1,012	608	4,306	5,698	844	1,082	1,579	1,579	64	16,900
Gaol—											
Under 1 year	59	611	354	2,915	4,222	626	689	858	833	22	11,189
1 year and over	2	29	8	557	361	142	135	249	181	Nil	1,664
Penitentiary—											
2 years and under 5 years	4	185	73	549	869	250	93	154	212	"	2,389
5 years and over	2	4	25	243	124	66	11	23	61	"	559
Life	Nil	Nil	Nil	Nil	2	Nil	Nil	Nil	Nil	"	2
Death	"	"	1	3	8	"	1	1	3	"	17
Reformatory	5	4	11	121	2,517	68	9	6	171	"	2,912
Other	31	271	168	898	3,486	521	184	331	440	3	6,333
Totals	**231**	**2,116**	**1,248**	**9,592**	**17,287**	**2,517**	**2,204**	**3,201**	**3,480**	**89**	**41,965**

Subsection 2.—Non-Indictable Offences

The following statistics relate to non-indictable offences of adults disposed of by Police Magistrates or other Justices of the Peace, under authority of the Summary Convictions Act. Such convictions showed an increase of 5·8 p.c. during 1945 as compared with 1944, but were lower than any year from 1940 to 1943, inclusive. An increase in 1945 was shown in every province except Alberta. Yukon and the Northwest Territories showed a reduction.

11.—Convictions of Adults for Non-Indictable Offences, by Provinces, Years Ended Sept. 30, 1936-45

NOTE.—Figures for 1900-12 are given at p. 1020 of the 1933 Year Book, for 1913-30 at p. 913 of the 1942 edition and for 1931-35 at p. 1113 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936	956	5,593	4,691	111,254	204,744	17,476	5,750	8,810	18,349	58	25	377,706
1937	1,438	6,249	5,706	99,404	237,309	28,500	7,580	10,910	22,997	62	57	420,212
1938	1,497	6,552	5,299	89,443	238,224	32,748	7,113	10,973	22,695	60	60	414,664
1939	1,293	7,503	5,095	91,607	247,609	31,467	8,147	13,816	21,881	89	101	428,608
1940	1,237	9,138	6,213	93,965	267,166	31,018	9,276	14,702	23,190	98	106	456,109
1941	1,664	10,254	7,703	152,330	288,874	32,481	10,499	15,434	28,096	80	141	547,556
1942	1,521	10,386	8,170	195,672	285,240	32,209	8,541	14,543	24,905	86	91	581,364
1943	1,033	8,857	7,619	181,425	204,227	21,986	7,810	11,598	20,510	145	105	465,315
1944	1,287	8,760	9,533	146,593	199,938	22,602	7,788	11,950	21,866	336	74	430,727
1945	1,394	9,786	9,818	158,580	209,713	22,820	8,996	11,576	22,887	312	36	455,918

Analyses of Convictions for Non-Indictable Offences.—Breaches of traffic regulations account for the largest number of non-indictable convictions. In 1945, they comprised 62·9 p.c. of the total number of such crimes (see p. 244 for further statement). Offences against revenue laws showed the highest percentage increase in 1945 over 1944 amounting to 56·5 p.c.; the 1945 figure was, however, below those for 1942 and 1943. Other high percentage increases were shown in offences against the liquor, prohibition and temperance Acts (30 p.c.), loose, idle, disorderly conduct and disturbing the peace (29·4 p.c.) and non-support of family and neglecting children (28·9 p.c.).

12.—Convictions for Non-Indictable Offences, by Type, Years Ended Sept. 30, 1941-45

Offence	1941	1942	1943	1944	1945	Increase or Decrease 1944-45
	No.	No.	No.	No.	No.	No.
Assault	2,790	3,004	3,148	3,248	3,887	+639
Fishery and game Acts, offences against	3,403	2,412	2,219	2,485	2,297	−188
Gambling Acts, offences against	30,486	21,129	19,996	16,283	16,626	+343
Liquor, prohibition and temperance Acts, offences against	15,369	16,898	15,099	17,093	22,237	+5,144
Non-payment of wages	1,380	364	186	175	126	−49
Breaches of traffic regulations	369,234	399,957	274,573	270,021	286,825	+16,804
Breaches of by-laws	36,102	34,541	37,601	27,114	26,209	−905
Non-support of family and neglecting children	2,546	2,403	2,099	2,442	3,148	+706
Contributing to delinquency of children	1,360	1,158	902	1,006	1,095	+89
Revenue laws, offences against	1,012	2,052	1,749	1,058	1,656	+598
Vagrancy	8,856	7,212	9,289	9,200	7,679	−1,521
Drunkenness	40,002	44,801	42,292	41,521	46,745	+5,224
Frequenting bawdy houses	1,208	1,192	852	634	802	+168
Loose, idle, disorderly conduct, and disturbing the peace	9,291	9,684	5,536	7,082	9,161	+2,079
Radios without licences	12,447	21,706	34,434	7,194	7,534	+340
Various other offences	12,070	12,851	15,340	24,171	19,891	−4,280
Totals	**547,556**	**581,364**	**465,315**	**430,727**	**455,918**	**+25,191**

Convictions for Drunkenness.—The number of convictions declined slightly in 1943 and 1944 but increased by over 5,000 in 1945. This may be due, to some extent, to stricter enforcement and the return of men from overseas. New Brunswick, Alberta, British Columbia and the Northwest Territories, all showed decreases in such convictions. The highest percentage increase was in Yukon followed by Prince Edward Island, Nova Scotia and Manitoba.

13.—Convictions for Drunkenness, by Provinces, Years Ended Sept. 30, 1936-45

NOTE.—Figures for 1900-10 are given at p. 1021 of the 1933 Year Book, for 1911-30 at p. 914 of the 1942 edition and for 1931-35 at p. 1114 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Man.	Sask.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936	558	2,221	2,187	5,332	13,049	1,125	418	785	2,734	21	3	28,433
1937	559	2,577	2,809	7,544	15,960	1,050	425	929	2,720	14	19	34,606
1938	595	2,628	2,730	7,220	17,585	1,286	848	922	3,053	17	10	36,894
1939	546	2,463	2,179	6,427	18,120	985	895	1,130	3,226	23	13	36,007
1940	467	3,607	2,515	6,986	17,823	1,527	580	1,271	3,004	21	25	37,826
1941	539	3,654	3,332	8,292	17,831	1,472	591	1,353	2,871	23	44	40,002
1942	606	4,387	4,217	10,400	17,622	1,580	570	1,393	3,964	43	19	44,801
1943	332	2,380	3,489	10,363	17,482	1,885	778	1,462	4,055	51	15	42,292
1944	395	2,068	4,292	8.843	17,258	1,451	864	1,539	4,744	54	13	41,521
1945	612	3,064	4,158	10,336	19,573	2,040	1,010	1,515	4,342	85	10	46,745

Offences Against the Liquor Acts.—Until the War of 1914-18, alcoholic liquors were generally sold under specified conditions by licensed hotels or licensed shops. Offences against the Liquor Acts usually represented a breach of the conditions of sale. During that War, prohibition was generally established but, in more recent years, the Provincial Governments have taken over the sale of liquor through commissions. Eight of the nine provinces now have such Liquor Commissions, Prince Edward Island being the only province in which prohibition prevails. In 1945, the number of convictions for offences against the Liquor Acts reached the highest figure on record, 22,237, an increase of 30 p.c. over 1944. All the provinces contributed to this increase—Ontario's share was numerically the highest though Quebec more than doubled the number of its convictions and those for Prince Edward Island were two and three-quarter times higher than in 1944.

14.—Convictions for Offences Against the Liquor Acts, by Provinces, Years Ended Sept. 30, 1936-45

Note.—Figures for 1900-20 are given at p. 1022 of the 1933 Year Book, for 1921-30 at p. 915 of the 1942 edition and for 1931-35, at p. 1114 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936.....	37	698	610	1,252	4,185	940	570	784	965	24	8	10,073
1937.....	166	706	596	1,376	4,788	849	734	1,018	874	28	7	11,142
1938.....	333	794	487	1,837	5,873	886	606	810	793	16	7	12,442
1939.....	230	1,181	619	2,423	5,144	1,052	593	913	1,307	24	27	13,513
1940.....	215	1,149	379	2,102	5,372	997	927	831	903	37	34	12,946
1941.....	250	1,273	431	3,206	6,346	624	894	1,298	994	25	28	15,369
1942.....	188	1,323	477	3,037	6,901	1,130	982	1,294	1,508	24	34	16,898
1943.....	118	1,369	473	2,070	6,751	1,086	1,099	1,106	944	47	36	15,099
1944.....	56	2,240	814	1,287	8,332	1,057	1,010	1,108	1,047	119	23	17,093
1945.....	155	2,324	911	2,626	10,655	1,429	1,416	1,454	1,215	39	13	22,237

Breaches of Traffic Regulations.—At the beginning of the present century, when the motor-car was scarcely known and to-day's speeds even for freight movement were unheard of, convictions for breaches of traffic regulations numbered only 185 for all Canada. By 1942 the total convictions had risen to 399,957, the highest number ever recorded, and accounted for 69 p.c. of all non-indictable offences in that year.

A strong influence in reducing convictions under breaches of traffic regulations in 1943 and 1944 was the removal, owing to wartime restrictions, of a large number of private and passenger vehicles from the highways. The number of convictions in 1943 (274,573) was the lowest since 1936 (237,183). The 270,021 convictions for 1944 was a further decline, representing a decrease of 33 p.c. from the peak year of 1942. However, 1945 showed an increase of 6·2 p.c. over 1944. With the lifting of tire and gasoline restrictions, a further increase in the infringement of traffic regulations may be anticipated.

15.—Convictions for Breaches of Traffic Regulations, by Provinces, Years Ended Sept. 30, 1936-45

Note.—Since 1937 convictions for driving a car while drunk have been classed as indictable offences. In 1938 and later years dangerous and reckless driving was so classed and since 1939 leaving the scene of an accident has also been so classed. Figures for 1900-20 are given at p. 1023 of the 1933 Year Book, for 1921-30 at p. 915 of the 1942 edition and for 1931-35 at p. 1115 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936......	77	1,099	720	46,464	162,951	12,900	1,839	2,817	8,315	1	237,183
1937......	252	1,179	1,011	57,174	186,825	23,711	2,706	3,536	12,294	Nil	288,688
1938......	200	1,572	835	52,395	185,709	26,682	2,939	4,068	11,550	1	285,951
1939......	191	1,725	725	51,858	193,815	24,732	3,055	5,397	11,403	3	292,904
1940......	240	2,388	2,064	47,927	210,834	23,795	3,815	6,709	13,906	Nil	311,678
1941......	530	2,444	2,314	73,367	231,823	26,092	5,625	8,253	18,784	2[1]	369,234
1942......	331	2,594	1,765	110,579	232,646	25,522	4,034	7,779	14,705	2[1]	399,957
1943......	209	2,772	1,722	82,884	152,557	16,074	2,961	4,745	10,628	21	274,573
1944......	326	1,591	1,838	85,134	146,849	16,268	2,864	4,754	10,387	10	270,021
1945......	157	1,359	2,211	100,708	149,903	14,886	2,838	3,774	10,985	4	286,825

[1] Includes one in the Northwest Territories. No convictions were reported for the Northwest Territories for other years.

For the year 1945, Ontario, which had 44·3 p.c. of the registrations of motor-vehicles in Canada, had 52·3 p.c. of the total convictions; Quebec in the same year had 15·3 p.c. of the motor-vehicles and 35·1 p.c. of the convictions, and Manitoba 6·2 p.c. of the motor-vehicles and 5·2 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. Thus, the above three provinces have large urban centres, while in provinces with lower degrees of urbanization such as the Maritimes, Saskatchewan and Alberta, convictions were low in proportion to the number of motor-vehicles registered.

Convictions of Females.—In 1945, all the provinces showed increases over the previous year in the number of convictions of females for non-indictable offences except New Brunswick and Manitoba. No non-indictable offences were recorded in the Northwest Territories but the Yukon Territory increase shot up 68·8 p.c., British Columbia was next with 37·1 p.c. followed by Quebec with an increase of 33·3 p.c.

Among the more important offences listed, breaches of street-traffic regulations were the most numerous single offences by women, accounting for 9,001 in 1945 as against 8,763 in 1944. Drunkenness came next with 3,451, an increase of 445 over the previous year. Vagrancy accounted for 2,801 convictions as compared with 1,780 in 1944, an increase of 57·4 p.c. Convictions recorded as infractions of Liquor Laws numbered 1,829 as against 1,196 in 1944, an increase of 52·9 p.c. Of a total of 23,323 convictions in 1945, no less than 676 were for the relatively minor offence of operating a radio receiving set without a licence.

16.—Convictions of Females for Non-Indictable Offences, by Provinces, Years Ended Sept. 30, 1940-45

Province or Territory	Number of Convictions						Percentages of Females Convicted to Totals Convicted					
	1940	1941	1942	1943	1944	1945	1940	1941	1942	1943	1944	1945
Prince Edward Island	56	96	75	75	69	82	4·5	5·8	4·9	7·3	5·7	5·9
Nova Scotia	456	530	554	466	562	645	5·0	5·2	5·3	5·3	6·8	6·6
New Brunswick	244	379	320	321	430	424	3·9	4·9	3·9	4·2	4·7	4·3
Quebec	4,541	6,907	8,893	9,139	5,299	7,066	4·8	4·5	4·5	5·0	3·7	4·5
Ontario	14,966	15,159	13,521	9,455	10,343	10,780	5·6	5·2	4·7	4·6	5·5	5·1
Manitoba	1,624	1,563	1,459	1,234	1,293	1,211	5·2	4·8	4·5	5·6	6·1	5·3
Saskatchewan	340	401	360	425	402	427	3·7	3·8	4·2	5·4	5·4	4·7
Alberta	779	460	678	711	634	754	5·3	3·0	4·7	6·1	5·6	6·5
British Columbia	1,708	1,810	1,453	1,227	1,391	1,907	7·4	6·4	5·8	6·0	6·8	8·3
Yukon and N.W.T.	22	8	9	25	19	27	10·8	3·6	5·1	10·0	4·9	7·8
Canada	**24,736**	**27,313**	**27,322**	**23,078**	**20,442**	**23,323**	**5·4**	**5·0**	**4·7**	**5·0**	**5·0**	**5·1**

Section 2.—Appeals

In the calendar year 1945, 14·4 p.c. of the appeals in indictable cases resulted in the convictions being quashed. Appeals were dismissed in 63·0 p.c. of the cases, and new trials were directed in 4·7 p.c. In non-indictable cases, 52·8 p.c. of the appeals were dismissed.

17.—Appeals in Indictable and Non-Indictable Cases, by Provinces, 1945

Province or Court	Appeals Disposed of by Courts	Method of Disposal			
		Convictions Quashed	Dismissed	New Trial Directed	Other
	INDICTABLE CASES				
	No.	No.	No.	No.	No.
Prince Edward Island	2	Nil	1	1	Nil
Nova Scotia	20	"	19	Nil	1
New Brunswick	2	"	1	1	Nil
Quebec	44	4	33	2	5
Ontario	244	38	132	10	64
Manitoba	41	Nil	29	2	10
Saskatchewan	16	1	11	1	3
Alberta	61	22	31	6	2
British Columbia	123	14	91	3	15
Supreme Court of Canada	4	1	3	Nil	Nil
Totals	**557**	**80**	**351**	**26**	**100**
	NON-INDICTABLE CASES				
	No.	No.	No.	No.	No.
Prince Edward Island	33	15	18	Nil	Nil
Nova Scotia	85	20	44	"	21
New Brunswick	10	7	2	"	1
Quebec	63	28	32	"	3
Ontario	155	52	86	"	17
Manitoba	18	3	13	2	Nil
Saskatchewan	38	8	13	Nil	17
Alberta	60	14	33	"	13
British Columbia	63	17	36	"	10
Totals	**525**	**164**	**277**	**2**	**82**

PART II.—JUVENILE DELINQUENCY

Section 1.—Causes and Court Treatment of Juvenile Delinquency

It is generally accepted that boys and girls are not wholly responsible for their offences and that the child's family and the community in which he lives must share the blame. The statement that a community deserves the delinquency it has, places the responsibility in each locality firmly on the shoulders of every adult citizen.

A review of various studies* into the cause of juvenile delinquency shows the most generally accepted conditions predisposing to children's anti-social behaviour are as follows:—

(1) Broken homes, where one parent is absent, or where parents do not live in harmony.
(2) Vicious homes, characterized by drunkenness and cruelty.
(3) Poor and overcrowded living quarters.
(4) Lack of discipline and parental interest with consequent improper training in the home.
(5) Low income.
(6) Physical disability.
(7) Lack of wholesome recreation and community welfare services.

These conditions create a feeling of insecurity in the life of a child, a lack of confidence in himself, a need for affection without which he has a sense of rejection by his family or by society. The result, in many cases, is anti-social behaviour. The elimination of the causes of misbehaviour is, therefore, more important as a means of prevention and control of juvenile delinquency than is punishment. The Juvenile Delinquents Act, passed in 1908 and revised in 1929, was framed with this purpose in mind. It embodies the principle underlying the proper handling of juvenile offenders.

Under the provisions of the British North America Act, the Parliament of Canada is given power to declare juvenile delinquency to be a crime, but it has no jurisdiction to legislate regarding the civil status of delinquency except as it might be related to legislation respecting criminal law.

The Juvenile Delinquents Act defines a 'child' as "any boy or girl apparently or actually under the age of 16 years". Provision is made, however, by which the Governor in Council may proclaim that in any province the definition of a 'child' shall be broadened to include any person "under the age of 18 years". This has been done in British Columbia, Alberta, Manitoba and Quebec.

According to the Juvenile Delinquents Act, a child over the age of seven is capable of committing a crime, but should be dealt with not as an adult to be punished but as an adolescent requiring good health, encouragement and supervision.

For uniformity, the figures relating to juveniles compiled by the Dominion Bureau of Statistics refer only to those under 16 years of age. In this connection, it is interesting to note that the Conference on the Prevention and Control of Juvenile Delinquency called by the Attorney General of the United States in Washington in November, 1946, recommended that the "under the age of 18 years" as describing a juvenile delinquent be adopted throughout the United States.

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* See footnote to p. 253, also Report of the Royal Commission to Investigate the Penal System Canada, c. XV, p. 175.

The provisions of the Juvenile Delinquents Act may be put in force in any province by proclamation, after that province has passed an Act providing for the establishment of juvenile courts or the designation of any existing courts as juvenile courts, and has provided detention homes for children. Provision is also made to secure the benefits of the Federal Act for any specific city, town or area in any province in which legislation has not been enacted as a provincial measure. In this case, it is necessary for the Government of Canada to designate some judge or magistrate presiding over a provincial court to be the juvenile court judge.

Juvenile courts differ from other courts in many respects. The procedure of the juvenile court is informal and more in the nature of a social clinic, though it does not lack dignity. Children are dealt with separately from adults. Their cases are heard at different times and preferably in a different place. The child, his parent or guardian, and the probation officer or social worker are the only persons present. The press is excluded and may not use the name of the child in reporting the offence.

A preliminary investigation of the child's case is made and the information with the complete social data should be in the hands of the judge hearing the case. The place of detention should be in a building separate from one where adult criminals are housed and must be suitable for children.

Probation is the very essence of juvenile court treatment. It entails a study of the individual in his own environment with a view to ascertaining the causes of his anti-social conduct and in the light of these to readjusting him in society. It may be, of course, that it is the environment that needs to be changed. Through probation officers, who should be specially trained for their work, the court can keep in constant touch with the child who has appeared before it. If probation officers are not appointed, a voluntary committee of interested citizens should be available to assist the court.

Taking children from their parents is avoided whenever possible. However, children needing institutional care are sent to training schools or specialized institutions for further education and training rather than to prisons. In the treatment of juvenile offenders provision exists for the trial and punishment of parents, guardians or other adults who have contributed to a child's delinquency, directly or indirectly.

The qualifications of the judge who hears juvenile cases have more to do with the success or failure of the work than any other single factor. It is imperative that, as well as having legal knowledge, he or she be a socially minded person, sympathetic to the principles underlying juvenile court law, with a flexible attitude so necessary in this work, and that his or her personality be such as to win the confidence of the child. It is preferable that the judge give his full time to juvenile court work but, when other duties must be carried, it is important that sufficient time be allowed to keep him in touch with the administrative side of the juvenile work and the work of the probation officers.

Section 2.—Juvenile Delinquency Statistics

Characteristics and Limitations of Juvenile Court Statistics.—The problem of juvenile delinquency and adult crime differ in their cause, nature and treatment to such an extent that, although one may lead to the other, it is advisable to study them separately. For this reason the Dominion Bureau of Statistics, since 1922, has compiled statistics for juvenile delinquency separately from those of criminal and other offences committed by adults.

Statistics published by the Dominion Bureau of Statistics deal primarily with delinquency cases disposed of by the courts and serve to further the program of the treatment of young offenders.

The tabulations are based on data received from 121 juvenile courts in Canada and from those judges and magistrates before whom are brought the children whose conduct is contrary to the law. The fact that juvenile court statistics furnish the most comprehensive figures collected on a Dominion-wide basis makes it important that the limitations of these statistics are understood.

In the first place, it is impossible for any report to give a complete picture of juvenile delinquency, as many instances of minor offences are not detected, while others are settled by the police, social agencies, or school authorities without the necessity of apprehending the child. This is particularly true in rural districts where the courts are not as accessible and difficulties are apt to be settled in a neighbourly fashion.

Secondly, the number of cases brought before the courts is influenced by such factors as the personnel and facilities of the court, and community interest and understanding of the function of a juvenile court. Furthermore, it must be remembered that as time goes on more courts are established and the added returns may exaggerate an apparent increase in delinquency or may under-estimate a decrease.

Thirdly, the figures refer to the number of charges dealt with by the courts rather than to the number of children. Some of the children may be brought to court more than once within a year and are recorded as separate individuals each time they appear on new complaints. The figures, therefore, should not be interpreted as representing the number of delinquent children.

Lastly, the number of delinquency cases reported by the courts is affected, to a considerable extent, by variations in the policies of the courts in the disposition of cases. Some courts handle certain cases unofficially, that is, in these cases legal papers are not prepared and the case is adjusted by the judge or other officer of the court without a formal court hearing. Although some of the courts report the cases as adjourned *sine die*, others consider the interview as an "occurrence" meaning that the case is not recorded as a charge. When the number of these occurrences goes up, the number of official cases goes down. For the compilation of statistics these variations are unsatisfactory, though from a social point of view such practice may be in the best interest of the child provided that a case history of the individual is filed for future reference.

Judicial Districts.—Of the 157 Judicial Districts in 1945, 137 reported juvenile offences, 13 made 'nil' reports and 7 failed to report at all.

The reporting area for 1945, as for earlier years, was particularly representative of the larger urban centres, and included 106 of the 190 cities and towns in Canada with populations of 4,000 or over. Fifty-three cities not reporting are in the Province of Quebec. There is no legislation covering the establishment of juvenile courts for the whole of this Province, but Social Welfare Courts may be established in centres of 25,000 population or over.

The numbers of cities and towns of 4,000 population or over reporting juvenile cases in the years 1941 to 1945 were 64, 82, 88, 101 and 106, respectively.

Subsection 1.—Total Juvenile Offences

The terms 'indictable and non-indictable' are applied only to offences of adults, similar offences committed by juveniles are termed 'major' offences and 'minor' offences, respectively.

Delinquents Brought Before the Courts.—The number of juvenile delinquents brought before the courts in Canada during 1945 was 9,756, a decrease of 15·6 p.c. from the total of 11,554 cases tried during 1944. Juveniles charged with major offences showed a decrease from 7,292 in 1944 to 6,121 in 1945, or 16·1 p.c.; a total of 3,635 juveniles charged with minor offences were brought before the courts during 1945, as compared with 4,262 during 1944, a decrease of 14·7 p.c.

Table 1 shows the number of cases brought before the courts, by provinces, from 1941 to 1945. In 1945, a decrease was apparent in each of the provinces, except Prince Edward Island and British Columbia, as compared with the previous year.

1.—Juvenile Offenders Brought Before the Courts, by Provinces, Years Ended Sept. 30, 1941-45

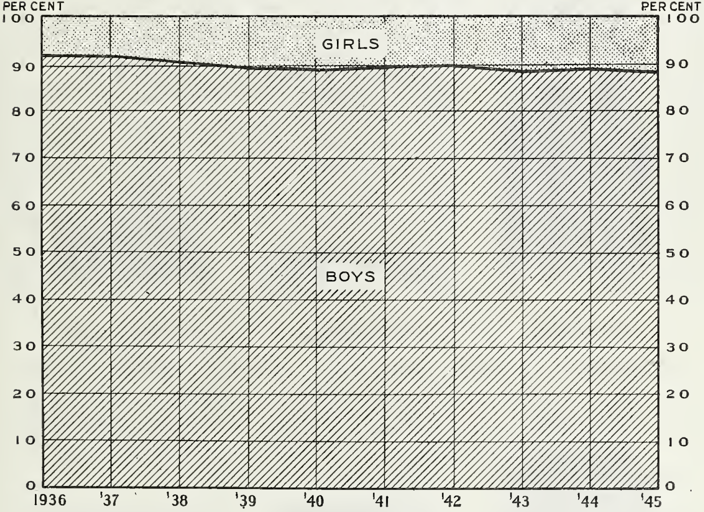
Province	1941	1942	1943	1944	1945	Percentage Change, 1944-45
	No.	No.	No.	No.	No.	
Prince Edward Island	75	103	89	109	118	+8·3
Nova Scotia	516	555	715	689	598	−13·2
New Brunswick	438	352	430	475	341	−28·2
Quebec	4,074	4,284	3,373	2,621	2,390	−8·8
Ontario	4,910	5,835	5,573	5,388	4,190	−22·2
Manitoba	469	649	467	445	366	−17·8
Saskatchewan	322	483	429	437	339	−22·4
Alberta	753	908	493	599	563	−6·0
British Columbia	580	633	656	791	851	+7·6
Totals	**12,137**	**13,802**	**12,225**	**11,554**	**9,756**	**−15·6**

The peak in delinquency among girls was reached in 1943, a year later than for boys, followed by a decline in numbers for both sexes. The ratio between boys and girls charged in court shows a gradual up-grading for the girls, though the actual number of girls appearing in court in 1945 was the lowest since 1940.

2.—Ratio of Boys and Girls Brought Before the Courts, Years Ended Sept. 30, 1936-45

Year	Total Charges	Boys		Girls	
	No.	No.	p.c.	No.	p.c.
1936	8,768	8,060	91·9	708	8·1
1937	9,675	8,886	91·8	789	8·2
1938	8,929	8,086	90·6	843	9·4
1939	9,497	8,514	89·6	983	10·4
1940	9,976	8,857	88·8	1,119	11·2
1941	12,137	10,812	89·1	1,325	10·9
1942	13,802	12,388	89·8	1,414	10·2
1943	12,225	10,795	88·3	1,430	11·7
1944	11,554	10,274	88·9	1,280	11·1
1945	9,756	8,599	88·1	1,157	11·9

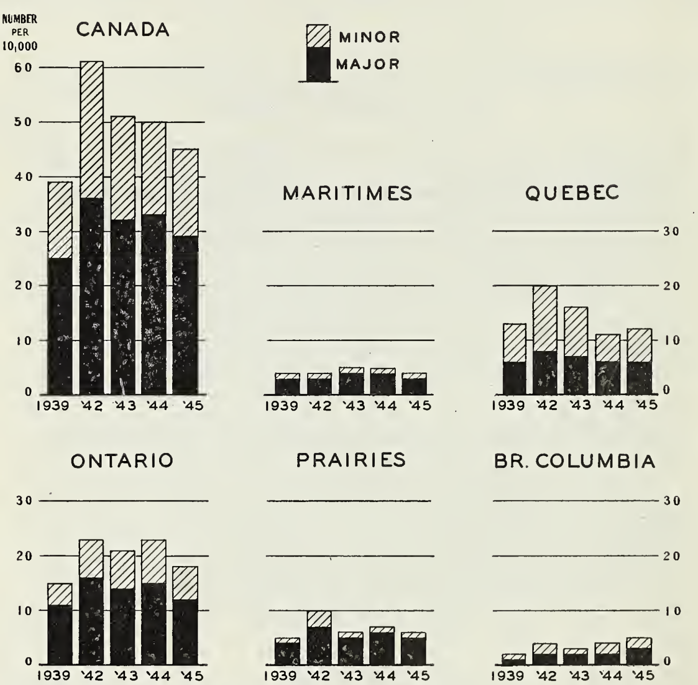
PERCENTAGES OF BOYS AND GIRLS BROUGHT BEFORE THE COURTS FOR ALL OFFENCES, 1936-45



Trends in Juvenile Delinquency.—During the years from 1922-45, economic and social events had their influence on the activities of young people. From 1922 to 1929, a period of comparative prosperity, the after-effects of the First World War were reflected in a gradual rise in the number of major and minor convictions from 6,298 to 8,185 (1927). Fluctuations were less noticeable in the period of financial depression and the pre-war years from 1930 to 1939. The top mark of juvenile offences (8,425) in those ten years was reached in 1930, and the low (7,035) in 1938 with the intervening years not going beyond 7,806.

The first three years of the Second World War, 1940-42, were marked by a serious increase in juvenile delinquency. The figures reached an all-time high in 1942 with 11,758 convictions. Since then, convictions have gradually declined; the 1945 figure of 8,909, however, is still higher than in any year from 1922 to 1941.

CONVICTIONS OF JUVENILES PER 10,000 JUVENILE POPULATION FOR CANADA AND PROVINCES, 1939, 1942—45



It is difficult to explain the reason for the decrease in juvenile delinquency since 1943. The socially maladjusted child of from 7 to 15 years of age was at the time of the outbreak of war between 3 and 11 years of age and, in the intervening four years, may have become adjusted to war conditions in the home. During the same period the feeling of excitement, anxiety and tension on the part of the parents at the beginning of the War may have lessened and this change may have been reflected in the less emotional disturbance of the child. Then, too, it is reasonable to suppose that, as the fathers and older brothers have returned home their presence has had a disciplinary effect on the younger members of the family.

3.—Total Convictions of Juveniles for All Offences, by Provinces, 1922-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1922	5	246	52	1,279	2,751	1,122	237	264	342	6,298
1923	10	329	60	1,492	2,682	1,076	277	284	360	6,571[1]
1924	31	395	81	1,507	3,224	1,556	409	223	333	7,759
1925	18	416	105	1,702	3,034	1,666	312	274	360	7,887
1926	6	301	73	1,471	2,947	1,804	278	506	445	7,831
1927	21	266	228	1,740	3,056	1,749	283	351	491	8,185
1928	11	320	221	1,459	2,700	1,617	332	426	613	7,699
1929	7	295	199	1,423	2,955	1,576	346	519	506	7,826
1930	10	325	301	1,581	3,108	1,389	457	651	603	8,425
1931	15	217	386	1,823	2,618	1,275	353	589	492	7,768
1932	6	262	273	1,973	2,591	1,143	256	432	427	7,363
1933	12	350	356	2,270	2,515	1,037	160	296	457	7,453
1934	10	443	277	2,533	2,427	842	216	473	584	7,806[2]
1935	34	312	355	2,484	2,753	582	282	380	497	7,679
1936	20	417	266	2,181	2,925	324	238	416	423	7,210
1937	51	514	369	2,367	3,008	218	331	448	410	7,716
1938	23	387	257	2,315	2,766	234	241	440	372	7,035
1939	48	309	335	2,576	2,915	328	229	444	429	7,613
1940	45	313	317	3,066	2,932	343	241	569	604	8,431[2]
1941	75	385	436	3,967	3,467	378	316	716	570	10,310
1942	101	353	350	4,044	4,394	602	466	835	613	11,758
1943	89	488	429	3,196	4,178	438	421	447	610	10,296
1944	109	475	474	2,259	4,428	416	422	565	769	9,917
1945	115	493	338	2,387	3,531	342	334	531	838	8,909

[1] Includes 1 conviction in Yukon. [2] Includes 1 conviction in the Northwest Territories.

During the years 1942, 1943, 1944 and 1945, surveys of juvenile delinquency were undertaken in several of the larger centres* because some of the adult population were gravely concerned about the increase in the number of misbehaving children. The resulting action on the part of communities probably had some effect on the prevention and control of juvenile delinquency. There are reports of the appointment of a recreation director in one city, of the provision of leadership training courses, of the establishment of community centres, of the increase of Home and School Associations and branches of the Big Brother movement, of the replacement of the old-time school attendance officer by teachers with social work training, etc.

In one Judicial District, the Judge of the Juvenile Court gives credit for improved conditions to the better and more intelligent co-operation of the police. On the

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*August, 1942—Juvenile Delinquency Survey by the London Council of Social Agencies.
November, 1943—Juvenile Delinquency Survey by the Welfare Council of Toronto and District undertaken at the request of the Toronto City Council.
1944—A Study of Juvenile Delinquency by the Council of Social Agencies of Greater Winnipeg.
March, 1944—A Study of Juvenile Delinquency by the Ottawa Council of Social Agencies.
October, 1945—Report on Juvenile Delinquency by the Welfare Council of Greater Vancouver.

other hand, there may have been fewer apprehensions in other places due to shortage of police personnel.

The gradual decline of juvenile delinquency in Canada since 1943 is hopeful, but the picture would not be as encouraging if the figures included young offenders up to the age of 18 years (see Table 9). There is no reason for satisfaction until all the recognized means of prevention have been pursued to the utmost.

Subsection 2.—Major Offences

Table 4 shows the convictions of juveniles for major offences for the years 1922-45.

4.—Convictions of Juveniles for Major Offences, by Provinces, Years Ended Sept. 30, 1922-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
1922	5	167	45	655	1,852	627	196	240	278	4,065
1923	10	253	60	864	1,633	581	249	246	268	4,165[1]
1924	31	251	59	782	1,977	750	362	192	251	4,655
1925	18	263	77	971	2,064	915	280	215	277	5,080
1926	6	187	55	870	2,081	1,002	246	326	317	5,090
1927	21	174	169	888	2,033	989	253	267	362	5,156
1928	11	225	145	880	1,800	970	273	340	419	5,063
1929	7	158	130	832	1,962	976	318	349	374	5,106
1930	10	203	131	1,033	2,155	869	381	443	428	5,653
1931	14	155	166	1,260	1,758	885	297	430	346	5,311
1932	4	184	186	1,293	1,772	820	229	306	302	5,096
1933	9	209	262	1,426	1,686	786	149	261	356	5,144
1934	9	300	155	1,444	1,814	635	185	409	401	5,353[2]
1935	33	240	247	1,633	2,059	428	239	318	317	5,514
1936	20	321	204	1,324	2,021	275	228	315	262	4,970
1937	46	344	276	1,392	2,016	196	311	344	299	5,224
1938	21	283	224	1,357	2,162	222	225	298	263	5,055
1939	45	228	244	1,245	2,164	293	201	321	277	5,018
1940	41	195	251	1,461	2,229	286	208	364	262	5,298[2]
1941	58	244	344	1,637	2,588	315	263	378	377	6,204
1942	60	220	279	1,617	3,071	503	397	472	301	6,920
1943	53	373	337	1,455	2,804	363	359	349	401	6,494
1944	82	362	363	1,212	2,901	345	356	431	477	6,529
1945	55	390	221	1,239	2,394	277	282	384	516	5,758

[1] Includes 1 conviction in Yukon.

[2] Includes 1 conviction in the Northwest Territories.

From 1922 to 1945 the number of convictions per 100,000 of the population for major offences varied from 44 (1939) to 60 (1942), the latter being higher by 5 per 100,000 than any other year. The number in 1945 was 47 which is well below the median (50) for the 24-year period.

The number of offences against the person, the most serious of juvenile crimes, has remained the same at 2 per 100,000 population since 1922, except for 1931. At no time during the period under consideration have they been more than 4·8 p.c. of the total number of convictions for major offences.

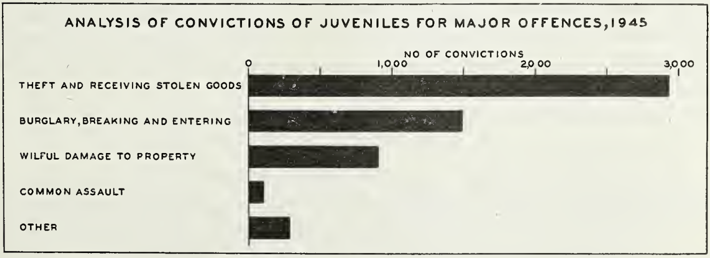
The crimes most prevalent among juveniles are offences against property without violence. This group includes all thefts without violence. They account for more than one-half of the total convictions, varying from 68·2 p.c. (1926) to 51·5 p.c. (1945).

Offences against property with violence (robbery, burglary, house- and shop-breaking) have increased since 1938. In 1944 and 1945 they constituted more than one-quarter of the total convictions for those two years.

5.—Convictions of Juveniles for Major Offences, by Classes of Offence, Years Ended Sept. 30, 1922-45

Year	Offences Against the Person		Offences Against Property with Violence		Offences Against Property without Violence		Malicious Offences Against Property		Forgery and Offences Against Currency		Other Offences		Total Convictions	
	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.	No.	Per 100,000 Pop.
1922	172	2	806	9	2,560	29	441	5	13	[1]	73	1	4,065	46
1923	179	2	755	8	2,740	31	464	5	9	[1]	18	[1]	4,165	46
1924	221	2	818	9	2,724	30	786	9	10	[1]	96	1	4,655	51
1925	207	2	794	9	3,306	36	593	6	7	[1]	173	2	5,080	55
1926	220	2	659	7	3,470	37	583	6	14	[1]	144	2	5,090	54
1927	179	2	772	8	3,311	35	798	8	7	[1]	89	1	5,156	54
1928	184	2	824	8	3,265	34	637	6	13	[1]	140	1	5,063	51
1929	223	2	976	10	3,096	31	690	7	12	[1]	109	1	5,106	51
1930	199	2	951	9	3,686	36	733	7	17	[1]	67	1	5,653	55
1931	256	3	961	9	3,150	30	788	8	10	[1]	146	1	5,311	51
1932	232	2	927	9	3,104	30	695	7	11	[1]	127	1	5,096	49
1933	247	2	972	9	3,164	30	661	6	4	[1]	96	1	5,144	48
1934	227	2	1,072	10	3,114	29	804	7	11	[1]	125	1	5,353	49
1935	248	2	1,031	9	3,562	33	612	6	12	[1]	49	[1]	5,514	50
1936	203	2	1,019	9	3,106	28	554	5	11	[1]	77	1	4,970	45
1937	186	2	1,222	11	3,143	28	575	5	10	[1]	88	1	5,224	47
1938	184	2	1,122	10	3,062	27	612	5	9	[1]	66	1	5,055	45
1939	190	2	1,207	10	2,926	26	589	5	13	[1]	93	1	5,018	44
1940	208	2	1,261	11	3,058	27	662	6	8	[1]	101	1	5,298	47
1941	263	2	1,407	12	3,467	30	947	8	14	[1]	106	1	6.204	54
1942	206	2	1,536	13	4,039	35	1,015	9	11	[1]	113	1	6,920	60
1943	258	2	1,550	13	3,658	31	892	8	21	[1]	115	1	6,494	55
1944	215	2	1,739	15	3,393	28	1,022	9	22	[1]	138	1	6,529	55
1945	218	2	1,513	12	2,964	24	933	8	29	[1]	101	1	5,758	47

[1] Too small to be shown.



Types of Major Offences Related to Age and Sex of Offenders.—Analysing these classes of offences during the past five years, the main reasons for reference to the court in boys' and girls' delinquency cases for major offences for the period

1941 to 1945 are summarized under sixteen principal headings in the following table. The most frequent violations among the boys in 1945 were theft (43·8 p.c.); burglary, breaking and entering (26·6 p.c.) the latter being a form of misdemeanor which offers more risk and excitement than any others; and malicious damage to property which includes arson (16·6 p.c.). The infractions against the law most prevalent among girls were theft (52·1 p.c.); offences against public morals (11·2 p.c.); and burglary, breaking and entering (11·2 p.c.).

6.—Convictions of Juveniles for Major Offences, by Type and Sex, Years Ended Sept. 30, 1941-45

Offence	1941		1942		1943		1944		1945	
	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males	Males	Fe-males
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Manslaughter and murder	Nil	Nil	1	Nil	1	Nil	3	Nil	Nil	Nil
Rape, carnal knowledge and incest	6	3	5	"	1	"	5	"	13	1
Indecent assault	43	Nil	30	"	46	"	38	"	30	Nil
Aggravated assault and wounding	54	5	22	1	24	4	53	3	25	2
Common assault	80	13	94	13	95	23	71	9	103	12
Endangering life on railway	54	Nil	38	Nil	63	Nil	26	Nil	30	Nil
Other offences against the person	2	3	2	"	1	"	3	4	1	1
Burglary, breaking and entering	1,378	18	1,468	29	1,509	23	1,675	27	1,467	27
Robbery	11	Nil	39	Nil	18	Nil	37	Nil	15	4
Theft and receiving stolen goods	3,289	150	3,863	160	3,462	178	3,218	162	2,810	134
Embezzlement, false pretences and fraud	20	8	16	Nil	17	1	11	2	15	5
Arson	32	2	20	1	23	Nil	35	2	19	Nil
Wilful damage to property	907	6	978	16	839	30	969	16	895	19
Forgery and offences against currency	13	1	8	3	20	1	18	4	23	6
Immorality	19	42	25	28	16	47	21	48	23	26
Various other offences	39	6	54	6	40	12	62	7	47	5
Totals	**5,947**	**257**	**6,663**	**257**	**6,175**	**319**	**6,245**	**284**	**5,516**	**242**

As children become older the percentage of major offences tends to increase. Generally speaking, boys of 8 years of age commit more than double the number of offences as the 7 year-olds and those of 9 years twice as many as the 8 year-olds. Over the 24-year period 1922-45, 58 p.c. of the major offences were committed by boys of 13, 14 and 15 years of age, and the latter age was responsible, on an average, for 22 p.c. of the major offences. In 1945 the number of offenders was lower for all ages than that of the previous two years except at the age of 15 years. (See Table 7.)

Girls of the 13 to 15 age group were answerable, on an average, for 64 p.c. and those of 15 years for 27·6 p.c. of the total female convictions.

Education and Delinquency.—In 1945, 64 p.c. of the convictions for major offences were for offences committed by children of 13, 14 and 15 years of age. Presuming that the age of entering school is six years, 77 p.c. of the above group were one or more years behind in school work, while of all the children convicted 72 p.c. were backward. This retardation may be due to other factors besides dullness, such as illness, change of residence, etc.

In only 3 p.c. of the total convictions were the children ahead of the normal rating in the school and only 8 p.c. had attended high school.

7.—Age, Sex and School Grade of Juvenile Delinquents Committing Major Offences, Year Ended Sept. 30, 1945

(B=Boys; G=Girls)

Age	Elementary Grades																Secondary Grades		Not Given		Total	
	I		II		III		IV		V		VI		VII		VIII							
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G
7 years	4	Nil	19	Nil	1	Nil	1	Nil	1	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	1	Nil	27	Nil
8 "	7	"	39	"	27	1	5	"	3	"	2	"	"	"	"	"	"	"	5	1	88	2
9 "	4	"	40	1	58	3	53	2	11	1	5	"	2	1	"	"	"	"	17	2	190	10
10 "	6	"	33	Nil	81	1	128	3	53	3	20	"	8	Nil	"	"	1	"	43	Nil	373	7
11 "	3	"	26	"	82	1	123	4	130	3	84	1	24	1	2	"	3	"	36	1	513	11
12 "	3	"	12	"	48	Nil	112	3	171	11	163	7	109	3	30	5	3	"	71	8	722	37
13 "	3	"	13	"	37	2	78	4	135	6	209	7	198	6	115	7	29	3	107	5	924	40
14 "	2	"	6	"	19	Nil	63	1	117	4	201	10	238	15	244	11	114	8	168	12	1,172	61
15 "	1	"	2	"	11	"	68	2	91	8	151	7	256	9	298	20	268	10	286	13	1,432	69
Not given	Nil	"	Nil	"	Nil	"	3	Nil	1	1	3	Nil	7	Nil	5	Nil	5	Nil	51	4	75	5
Totals	**33**	–	**190**	**1**	**364**	**8**	**634**	**19**	**713**	**37**	**838**	**32**	**842**	**35**	**694**	**43**	**423**	**21**	**785**	**46**	**5,516**	**242**

Birthplace of Parents of Delinquent Children.—Statistics show that juvenile delinquents are predominantly of Canadian origin. Out of 55,921 major offenders during the 10-year period 1936-45, 7,364, or 13·2 p.c., were of alien parentage. These figures are misleading, however, and viewed as they should be by population ratio will bear out to some extent the theory of difficult adjustment for those children whose parents are not born in this country, with the exception of those whose parents are born in the United States.

The actual number of delinquent children of foreign-born parents is small. When taken in relation to the population in the same age group (7 to 15 years) and in the same birthplace of parents, as approximately calculated from birth statistics, the results do not disclose any surprising differences. The juvenile delinquents of parents born in the British Isles or in a British possession are relatively more numerous than those of parents born in foreign countries or in Canada, while those whose parents were born in foreign countries, excluding the United States, show only a slightly higher ratio than those of Canadian-born stock. Those juvenile delinquents, whose parents were born in the United States, are only half the proportion of delinquent children of foreign-born or Canadian-born parents. This may be partly due to the fact that the families coming to Canada from across the border are fairly stable and in a high economic group.*

It must be pointed out that in the five-year period (1941-45) in an average of 427 cases the birthplace of parents was not reported each year. Had these been included they might affect considerably the ratio in any of the above groups.

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* "The American Born in Canada" by R. H. Coats and M. C. MacLean, shows that the American-born are to a larger extent in responsible positions and in the professions, and suffer less unemployment than Canadians as a whole.

8.—Birthplaces of Parents of Canadian-Born Juvenile Delinquents, Average 1941-45

Birthplace of Both Parents	Average 1941-45		
	Delinquents 7-15 Years of Age	Estimated Population 7-15 Years of Age	Rate per 1,000[1]
Canada	4,155	1,218,554	3·4
Great Britain and possessions	529	111,883	4·8
United States	47	24,862	1·9
Other foreign countries	487	136,925	3·6
Not given or not known	427	–	–

[1] Rates of offenders are per 1,000 population of the same age and whose parents have the same birthplace.

Convictions of Juvenile and Young Adult Offenders.—While, officially, juveniles are persons under 16 years of age, in response to increased public interest in offences committed by young persons, the following table has been compiled, in which the convictions for indictable offences of persons aged 16 to under 21 have been added to the figures of juveniles found guilty of major offences. The rates per 100,000 population are the proportions of the offences committed by persons in any one age group.

9.—Convictions of Juveniles for Major Offences and of Young Adults for Indictable Offences, Years Ended Sept. 30, 1939-45

NOTE.—The population figure used for 1941 is from the 1941 Census; population figures for all other years are official estimates.

Year	Juveniles (7-15 inclusive)			Juvenile Adults (16-18 inclusive)			Adults (19-20 inclusive)		
	Convictions	Rate per 100,000 Population	Percentage Change from Preceding Year	Convictions	Rate per 100,000 Population	Percentage Change from Preceding Year	Convictions	Rate per 100,000 Population	Percentage Change from Preceding Year
	No.		p.c.	No.		p.c.	No.		p.c.
1939	5,018	264	−0·7	6,030	895	+15·8	4,450	1,045	+35·4
1940	5,298	289	+5·6	5,762	850	−4·4	3,709	867	−16·7
1941	6,204	321	+17·1	5,434	810	−5·7	3,146	732	−15·2
1942	6,920	358	+11·5	5,350	806	−1·6	3,118	720	−0·9
1943	6,494	333	−6·2	6,768	1,027	+26·5	3,287	752	+5·4
1944	6,529	335	+0·5	7,490	1,138	+10·7	3,940	893	+19·9
1945	5,758	295	−11·8	6,958	1,064	−7·1	3,732	852	−5·3

Repeaters.—Through the years from 1922 to 1945, approximately one in every four children brought before the court failed to heed the first warning of the court and has made at least a second appearance.

The 1945 figures show that in almost three-quarters of the cases (73·5 p.c.), the children appeared before the court for the first time, 14·1 p.c. of them were second offenders, 5·9 p.c. third, 2·4 p.c. fourth and 4·1 p.c. had been up five or more times.

Previous court experience of boys and girls who have been committed for major offences is shown in the following table, covering the period 1936–45.

10.—First Offenders and Repeaters of Major Offences, 1936-45

Year	Total Delinquents	First Offenders	Repeaters					
			Second	Third	Fourth	Fifth or More	Total	Percentage of Total Delinquents
	No.	No.	No.	No.	No.	No.	No.	p.c.
1936	4,970	3,446	721	353	203	247	1,524	30·66
1937	5,224	3,637	787	359	197	244	1,587	30·38
1938	5,055	3,537	767	357	144	250	1,518	30·03
1939	5,018	3,588	709	306	192	223	1,430	28·50
1940	5,298	3,711	813	357	190	227	1,587	29·95
1941	6,204	4,356	994	396	199	259	1,848	29·79
1942	6,920	5,577	669	348	144	182	1,343	19·41
1943	6,494	4,831	865	386	183	229	1,663	25·61
1944	6,529	4,665	943	429	221	271	1,864	28·55
1945	5,758	4,231	812	337	137	241	1,527	26·52

Disposition of Cases of Major Offenders.—Placing the child on probation of the court, fines and suspended sentences account mainly for the disposition of cases for major offences. Court probation takes care of the largest proportion and seems to be the alternative to the imposition of fines. When the figure for one rises, that for the other drops. For the 10-year period 1936-45, on an average, 36 p.c. of the sentences have been court probation. Suspended sentence was given in approximately 25 p.c. of the cases with very little variation and 13·6 p.c. were sent to training schools. Such schools have been used to a greater extent since 1938 in commitments for both major and minor offences, in spite of the fact that some of these institutions were commandeered for military purposes during the war years.

The following table shows the disposition of delinquents who committed major offences during the period 1922-45. Under "Probation of Court" are listed those children who have been placed in foster homes by Children's Aid Societies and Provincial Child Welfare Departments, or who have been given into the care of Probation Officers, Big Brothers Associations, Big Sisters Associations, etc. "Detained Indefinitely" may represent any period of detention from a few days to about a month in which the child is under observation or is awaiting his hearing.

11.—Disposition of Delinquents Convicted of Major Offences, With Percentages to Total Major Offences, Years Ended Sept. 30, 1922-45

Year	Reprimanded		Probation of Court		Protection of Parents		Fined or Made Restitution		Detained Indefinitely		Sent to Industrial School		Sentence Suspended		Corporal Punishment	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p c.	No.	p.c.	No.	p.c.
1922	225	6·3	1,631	40·1	142	3·5	582	14·3	125	3·1	345	8·5	984	24·2	1	[1]
1923	233	5·6	1,752	42·1	220	5·3	564	13·5	91	2·2	339	8·1	955	22·9	11	0·3
1924	437	9·4	1,633	35·1	321	6·9	984	21·1	108	2·3	453	9·7	680	14·7	39	0·8
1925	589	11·6	1,980	38·9	84	1·7	710	13·9	96	1·9	516	10·2	1,076	21·2	29	0·6
1926	543	10·7	1,199	23·5	130	2·5	957	18·8	243	4·8	466	9·2	1,508	29·6	44	0·9
1927	825	16·0	1,058	20·5	158	3·0	763	14·8	276	5·3	458	8·9	1,509	29·2	109	2·1
1928	1,093	21·6	1,097	21·7	137	2·7	716	14·1	153	3·0	510	10·1	1,293	25·5	64	1·3
1929	652	12·8	1,408	27·6	196	3·8	1,119	21·9	104	2·0	592	9·8	1,087	21·3	38	0·8
1930	758	13·4	2,165	38·3	59	1·0	795	14·1	53	0·9	524	9·3	1,278	22·6	22	0·4
1931	902	17·0	2,161	49·7	62	1·2	578	10·9	31	0·6	452	8·5	1,101	20·7	24	0·4

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[1] Too small to be shown.

11.—Disposition of Delinquents Convicted of Major Offences, With Percentages to Total Major Offences, Years Ended Sept. 30, 1922-45—concluded

Year	Reprimanded		Probation of Court		Protection of Parents		Fined or Made Restitution		Detained Indefinitely		Sent to Industrial School		Sentence Suspended		Corporal Punishment	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1932	845	16·6	1,956	38·4	81	1·6	352	6·9	13	0·2	584	11·5	1,233	24·2	32	0·6
1933	902	17·5	2,123	41·4	27	0·5	304	5·9	14	0·2	510	9·9	1,238	24·1	26	0·5
1934	821	15·3	2,433	45·5	30	0·6	253	4·7	22	0·4	488	9·1	1,273	23·8	33	0·6
1935	482	8·7	2,843	51·6	61	1·1	283	5·1	15	0·3	540	9·8	1,159	21·0	131	2·4
1936	470	9·5	2,419	48·6	36	0·7	317	6·4	25	0·5	559	11·3	1,087	21·9	57	1·1
1937	474	9·1	2,510	48·1	37	0·7	346	6·6	39	0·8	568	10·8	1,201	23·0	49	0·9
1938	383	7·6	1,949	38·6	38	0·8	301	6·0	36	0·7	614	21·1	1,686	33·3	48	0·9
1939	404	8·0	1,631	32·5	28	0·6	228	4·5	119	2·4	639	12·7	1,941	38·7	28	0·6
1940	296	5·6	2,108	39·8	33	0·6	281	5·3	111	2·1	785	14·8	1,643	31·0	41	0·8
1941	422	6·8	2,836	45·7	130	2·1	411	6·7	108	1·7	820	13·2	1,442	23·2	35	0·6
1942	432	6·2	1,984	28·7	83	1·2	854	12·3	96	1·5	847	12·2	2,573	37·2	51	0·7
1943	464	7·1	1,798	27·7	140	2·2	1,001	15·4	92	1·4	906	14·0	2,041	31·4	52	0·8
1944	395	6·0	1,745	26·7	112	1·7	1,545	23·7	83	1·3	838	12·8	1,747	26·8	64	1·0
1945	352	6·1	1,581	27·5	109	1·9	1,514	26·3	54	0·9	753	13·1	1,372	23·8	23	0·4

Subsection 3.—Minor Offences

Like convictions for major offences, those for minor offences are on the decline to the extent of 10·9 p.c. in 1944 as compared with 1943 and of another 7 p.c. in 1945 compared with 1944.

Table **12** gives a summary of convictions of juveniles for minor offences by provinces from 1922 to 1945.

12.—Convictions of Juveniles for Minor Offences, by Provinces, Years Ended Sept. 30, 1922-45

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
1922	Nil	79	7	624	899	495	41	24	64	2,233
1923	“	76	Nil	628	1,049	495	28	38	92	2,406
1924	“	144	22	725	1,247	806	47	31	82	3,104
1925	“	153	28	731	970	751	32	59	83	2,807
1926	“	114	18	601	866	802	32	180	128	2,741
1927	“	92	59	852	1,023	760	30	84	129	3,029
1928	“	95	76	579	900	647	59	86	194	2,636
1929	“	137	69	591	993	600	28	170	132	2,720
1930	“	122	170	548	953	520	76	208	175	2,772
1931	1	62	220	563	860	390	56	159	146	2,457
1932	2	78	87	680	819	323	27	126	125	2,267
1933	3	141	94	844	829	251	11	35	101	2,309
1934	1	143	122	1,089	613	207	31	64	183	2,453
1935	1	72	108	851	694	154	43	62	180	2,165
1936	Nil	96	62	857	904	49	10	101	161	2,240
1937	5	170	93	975	992	22	20	104	111	2,492
1938	2	104	33	958	604	12	16	142	109	1,980
1939	3	81	91	1,331	751	35	28	123	152	2,595
1940	4	118	66	1,605	703	57	33	205	342	3,133
1941	17	141	92	2,330	879	63	53	338	193	4,106
1942	41	133	71	2,427	1,323	99	69	363	312	4,838
1943	36	115	92	1,741	1,374	75	62	98	209	3,802
1944	27	113	111	1,047	1,527	71	66	134	292	3,388
1945	60	103	117	1,148	1,137	65	52	147	322	3,151

13.—Convictions of Juveniles for Minor Offences, by Classes of Offence, With Percentages to Total Minor Convictions, 1922-45

Year	Traffic Regulations		Disorderly Conduct and Disturbing the Peace		Incorrigibility		Truancy		Vagrancy and Wandering Away from Home		Other Minor Offences		Total Minor Offences	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1922.......	149	6·7	381	17·1	146	6·5	206	9·2	281	12·6	1,070	47·9	2,233	100
1923.......	240	10·0	376	15·6	195	8·1	263	10·9	291	12·1	1,041	43·3	2,406	100
1924.......	283	9·1	517	16·7	247	7·9	345	11·1	309	10·0	1,403	45·2	3,104	100
1925.......	176	6·2	470	16·8	325	11·6	271	9·7	286	10·2	1,279	45·5	2,807	100
1926.......	276	10·1	447	16·3	364	13·3	244	8·9	273	9·9	1,137	41·5	2,741	100
1927.......	142	4·7	479	15·5	340	11·3	182	6·1	381	12·6	1,505	49·8	3,029	100
1928.......	170	6·5	420	15·9	298	11·3	320	12·1	265	10·1	1,163	44·1	2,636	100
1929.......	197	7·2	347	12·8	327	12·0	327	12·0	240	8·9	1,282	47·1	2,720	100
1930.......	261	9·4	403	14·5	311	11·2	448	16·2	264	9·5	1,085	39·2	2,772	100
1931.......	298	12·1	430	17·5	288	11·7	329	13·4	326	13·3	786	32·0	2,457	100
1932.......	111	4·9	300	13·2	304	13·4	339	15·0	361	15·9	852	37·6	2,267	100
1933.......	115	5·0	457	19·8	498	21·6	203	8·8	217	9·4	819	35·4	2,309	100
1934.......	174	7·1	567	23·1	574	23·4	268	10·9	225	9·2	645	26·3	2,453	100
1935.......	107	4·9	312	14·4	495	22·9	234	10·8	301	13·9	716	33·1	2,165	100
1936.......	159	7·0	476	21·5	530	23·6	277	12·3	203	9·1	595	26·5	2,240	100
1937.......	193	7·7	428	17·2	702	28·2	274	11·0	117	4·7	778	31·2	2,492	100
1938.......	201	10·2	312	15·7	677	34·2	264	13·3	77	3·9	449	22·7	1,980	100
1939.......	273	10·5	454	17·5	761	29·3	264	10·2	138	5·3	705	27·2	2,595	100
1940.......	399	12·7	604	19·3	951	30·4	289	9·2	125	4·0	765	24·4	3,133	100
1941.......	835	20·4	501	12·2	1,145	27·9	366	8·9	209	5·1	1,050	25·5	4,106	100
1942.......	994	20·6	418	8·6	1,275	26·4	348	7·2	360	7·4	1,443	29·8	4,838	100
1943.......	463	12·2	283	7·4	984	25·9	372	9·8	435	11·4	1,265	33·3	3,802	100
1944.......	637	18·8	199	5·8	873	25·8	498	14·7	267	7·9	914	27·0	3,388	100
1945.......	487	15·5	216	6·8	838	26·6	424	13·5	222	7·0	964	30·6	3,151	100

Disposition of Cases of Minor Offences.—In contrast to the sentences for major offences, the majority of delinquents for minor offences up to 1937, with the exception of two years, were reprimanded and allowed to go under supervision. Since 1938, this proportion has been cut down to approximately one-third as a result of greater use being made of training schools. Before 1937, less than 10 p.c. of the commitments were to training schools, while since then the number averaged 13·9 p.c.; in 1945 it was as high as 18·9 p.c.

Through the depression years the percentage of fines imposed was low, due no doubt to inability to collect them, while from 1922 to 1930 and from 1940 to 1945 they averaged approximately 25 p.c. of the sentences.

There have been fluctuations in the percentage of suspended sentences from 8·5 p.c. to 46·4 p.c. Since 1932 sentence has been suspended, on an average, in well over 25 p.c. of the cases; the years 1938 and 1939 showed over 40 p.c. while the figure dropped to 18·2 p.c. in 1945.

The figures for 1945 run fairly close to the apportionment of sentences since 1938, that is 35·4 p.c. of the children were reprimanded and allowed to go under supervision; 18·2 p.c. of the cases were suspended, adjourned *sine die* or otherwise disposed of; 18·9 p.c. were sent to training schools, which is a slightly higher proportion than those placed in schools for more serious offences during the year; 27·1 p.c. were fined or had to make restitution.

14.—Disposition of Delinquents Convicted of Minor Offences, With Percentages to Total Minor Offences, Years Ended Sept. 30, 1922-45

Year	Reprimanded and Allowed to Go Under Supervision		Detained Indefinitely		Sent to Training School		Fined or Paid Damage		Sentence Suspended	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1922	1,325	59·3	44	2·0	85	3·8	504	22·6	275	12·3
1923	1,475	61·3	74	3·1	87	3·6	396	16·5	374	15·5
1924	1,940	62·5	79	2·5	189	6·1	468	15·1	428	13·8
1925	1,611	57·4	49	1·7	147	5·2	488	17·4	512	18·3
1926	1,438	52·5	41	1·5	84	3·1	814	29·7	364	13·2
1927	1,501	49·6	70	2·3	211	7·0	876	28·9	371	12·2
1928	1,601	60·7	47	1·8	121	4·6	611	23·2	256	9·7
1929	1,593	58·6	22	0·8	158	5·8	716	26·3	231	8·5
1930	1,357	49·0	17	0·6	195	7·0	473	17·1	730	26·3
1931	1,582	64·4	1	[1]	177	7·2	360	14·7	337	13·7
1932	1,338	59·2	2	[1]	196	8·6	192	8·4	539	23·8
1933	1,469	63·6	1	[1]	156	6·7	122	5·3	561	24·2
1934	1,495	61·0	Nil	[1]	182	7·4	84	3·4	692	28·2
1935	1,187	54·8	2	0·1	203	9·4	227	10·5	546	25·2
1936	1,241	55·4	2	0·1	220	9·8	211	9·4	566	25·3
1937	1,352	54·2	9	0·4	206	8·3	262	10·5	663	26·6
1938	756	38·2	9	0·4	233	11·8	171	8·6	811	41·0
1939	631	24·3	37	1·4	345	13·3	380	14·6	1,202	46·4
1940	1,340	42·8	52	1·7	409	13·0	542	17·3	790	25·2
1941	2,188	53·3	31	0·8	512	12·5	986	24·0	389	9·4
1942	1,085	22·4	22	0·5	607	12·6	1,448	29·9	1,676	34·6
1943	1,056	27·8	9	0·2	495	13·0	961	25·3	1,281	33·7
1944	1,035	30·5	9	0·3	538	15·9	1,002	29·6	804	23·7
1945	1,117	35·4	11	0·4	595	18·9	853	27·1	575	18·2

[1] Too small to be shown.

Subsection 3.—Suggested Preventive Measures

To co-ordinate the work of delinquency control at all levels of government, it has been proposed* that a Federal Bureau of Delinquency be established which would collect data and would plan and integrate the work of Provincial and Municipal Governments in comformity with a national scheme.

In the provinces, the development of juvenile courts has been uneven, and it is well recognized that there is a need for:—

(1) Appropriate legislation so that the benefit of the Juvenile Delinquents Act can be fully realized.

(2) A juvenile court in each Judicial District, county, city, or other area where the demand, based on population, requires it, together with a full-time juvenile court judge supported by a staff of specially trained probation officers, social workers, a part-time physician, psychologist and psychiatrist where medical and psychiatric clinics are not available.

(3) Specialized institutions to take care of the differing requirements of those children who have come up against the law, so that the mentally dull and physically handicapped may receive the training their disabilities demand and so that they may not retard those who are capable of better achievement.

(4) The extension of foster-home care as an alternative to institutional care.

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* Fourth Canadian Penal Congress, Windsor, Ont., Oct. 8, 1946.

The treatment of juvenile delinquents in training schools and reformatories is not enlarged upon in this article, not because of its unimportance, but rather because of its importance which requires more space than can be given here. Furthermore, the field of this phase of the control of delinquency might better be reviewed at a later date when the changes and reforms, now under way in several of the provinces, have had time to show results. Suffice it to say that the trend is towards institutions run on progressive educational lines with emphasis on training and treatment for children with special needs, and not on retribution and punishment; a place of opportunity for those who have failed to make a good start on the road to healthy maturity.

There is a general consensus of opinion that, on the municipal level, juvenile delinquency could be substantially retarded by:—

(1) The co-operation of all agencies, both public and private, that work with young people.

(2) Neighbourhoods that offer social, religious and recreational facilities for all ages.

(3) Improved housing conditions and low rentals.

(4) The employment by the schools of properly qualified visiting teachers to form a link between the home and school life of a child; the provision of facilities for educational and vocational guidance in the schools and a school program so planned that children of all grades of intelligence may obtain successful achievement in their school life.

(5) The establishment of medical and psychiatric clinics.

At all levels, Dominion, Provincial and Municipal, there is a need for research, supported by uniform statistics.

PART III.—POLICE FORCES IN CANADA*

The Police Forces operating in Canada are organized under three groups: (1) the Federal Force, which is the Royal Canadian Mounted Police and whose operations cover a very wide field in addition to purely police work; (2) the Provincial Police Forces—the Provinces of Ontario, Quebec and British Columbia have organized their own Provincial Forces, but the other Provinces engage the services of the Royal Canadian Mounted Police to perform parallel functions within their boundaries; (3) the Municipal Police—every city of reasonable size employs its own police organization which is paid for by the local taxpayers and which attends to purely police matters within the borders of the municipality concerned.

The organizations under these three headings are described in turn below.

Section 1.—The Royal Canadian Mounted Police

Name and Status.—The Royal Canadian Mounted Police is a Civil Force maintained by the Dominion Government. It was organized in 1873 as the North West Mounted Police, whose duties were confined to what was then known as the Northwest Territories. By 1904, the work of the Force received signal recognition when the prefix "Royal" was bestowed upon it by King Edward VII. In 1905, when Alberta and Saskatchewan were constituted Provinces, an arrangement was made whereby the Force continued to discharge its duties as formerly, each Province making a contribution towards defraying the cost. This was continued until 1917.

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* The material under this heading has been obtained through the courtesy of Commissioner S. T. Wood, C.M.G., of the Royal Canadian Mounted Police. Section 2, dealing with Provincial Police Forces, was submitted to Commissioner Wood by Geo. A. Shea, O.B.E., Secretary-Treasurer, Chief Constables' Association of Canada, who, in turn, received the basic data from the individual Provincial Police Commissioners.

In 1918, the Royal North West Mounted Police was assigned the duty of the enforcement of Dominion legislation for the whole of Canada west of Port Arthur and Fort William. Soon after the end of the War of 1914-18, an extension of governmental activities made it obvious that the enforcement of Dominion statutes throughout Canada must be the responsibility of a Dominion Force and, therefore, the jurisdiction of the Royal North West Mounted Police was extended to the whole of Canada early in 1920. In that year, the name of the Force was changed to the Royal Canadian Mounted Police and the former Dominion Police with Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and the Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., were absorbed by the Royal Canadian Mounted Police.

Control and Organization.—The Force is controlled and administered by a Minister of the Crown (at present the Minister of Justice) and, as stated above, may be employed anywhere in Canada. Its officers are commissioned by the Crown and for many years have been selected from serving non-commissioned officers.

The Force is divided into 13 Divisions of varying strength, distributed over the entire country. Recruiting in Canada is once again in full swing, after the long period of the War, during which the Force received no recruits. The term of engagement for recruits is five years, and the minimum age for a third-class constable is 21 years.

Recruits are trained at Regina, Sask., and Rockcliffe, Ont. Police Colleges are also maintained at these centres, where courses of training and instruction are given to keep the Force abreast of the latest developments in criminology. In 1937, a Reserve was established which now numbers over 500: units are located principally at such large centres as Montreal, Toronto, Winnipeg, Edmonton, Calgary and Halifax, where men can be congregated easily, and where instruction can be given in the evenings.

From a total of 300 in 1873, the Force grew to over 4,700 by 1944 and in 1946 had a strength of approximately 3,000. Its means of transport consists of 143 horses, 837 motor-vehicles, 4 aeroplanes and 280 sleigh dogs; 17 trained police dogs are maintained for tracking. Its Marine Section at present consists of 170 officers and men and 21 vessels of various sizes. The R.C.M. Police Aviation Section has a personnel of 12.

Duties.—The Royal Canadian Mounted Police has the responsibility of enforcing Dominion laws throughout Canada and is specially empowered to deal with infractions against smuggling by sea, land and air. It also enforces the provisions of the Excise Act, and is responsible for the suppression of traffic in narcotic drugs. In all, the Force has responsibility in almost 50 Dominion Acts including the Indian Act. It also assists many departments of the Dominion Government in administrative duties and is responsible for the protection of Government buildings and property and some of the more important dockyards. It is the sole police force operating in the Northwest Territories and Yukon. Furthermore, it undertakes secret and security services for the Dominion Government. In addition to its Dominion duties, the Force has agreements with the Provinces of Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island, whereby the services of the Royal Canadian Mounted Police can be secured to enforce provincial laws and the Criminal Code in rural districts upon payment for such services. These agreements have been in force for more than 15 years.

During recent years, the Force has also entered into agreements for the policing of certain cities, towns and municipalities within the six Provinces mentioned above. There are at present over 70 such agreements in existence.

Services to Other Police Forces.—The Royal Canadian Mounted Police maintains two scientific laboratories for the examination of exhibits of all kinds, and these services, as well as its central fingerprint, modus operandi, and firearms bureaus, anti-counterfeiting and other facilities are available to all police forces. It also maintains two Police Colleges where selected personnel from other police forces may send candidates.

Personnel Department.—The Force is continually working to keep abreast of the times, and a few years ago established a Personnel Department, which looks after all recruiting and attempts to see, from psychological and other points of view, that the right man is assigned to the right place. The Force also employs the services of dietitians.

Youth and the Police.—Since the autumn of 1945, members of the Royal Canadian Mounted Police have made a concerted effort to assist the youth of Canada in developing a healthful outlook towards the police, law, order and responsible citizenship. This is being done in many ways. Volunteer speakers, who are qualified for the work, go before youth groups of all kinds and speak on such subjects as Discipline in Everyday Life, History of the Royal Canadian Mounted Police, Courtesy and Kindness, Functions of the Police in Society. With the permission of the Departments of Education and local school boards, all the schools in each province are being covered as well as youth groups supervised by service clubs and churches. Considerable interest is also being taken by members of the Force in various training schools set up to handle delinquents.

An effort is made to show the policeman as a public servant, essential to the well-being of the country, a referee in a game the rules of which have been made by members of the community for the greater comfort and security of all. The program does not compete with other youth work and co-operation with them is desired. The work with youth has created a demand from adult groups interested in youth guidance, for speakers to tell how the program functions. The program has been well received and is considered as having had a good effect on the children it has reached. By the end of the school year in June, 1947, approximately 500,000 children will have heard speakers from the Force. Considerable use is made of films but their showing is incidental to the other aspects of the program.

The Force is also doing invaluable voluntary work in supervising recreational facilities, teaching first aid, coaching hockey and baseball teams and many other recreational activities. This phase of youth work is in keeping with the thought that the excess energy of youth should be directed into healthful and creative channels. The key-note of the program is co-operation between the Royal Canadian Mounted Police, other police forces and all agencies interested in the future of the youth of Canada.

Section 2.—Provincial Police Forces

Quebec Provincial Police Force.—The Quebec Provincial Police Force is responsible for upholding law and order over the whole territory of the Province and extending from the provincial boundary between Ontario and Quebec to the Magdalen Islands in the Gulf of St. Lawrence.

This Force, composed of about 600 men, is in charge of a Director who acts under direct orders from and is responsible to the Attorney-General of the Province.

To facilitate operations, the territory is divided into two almost equal parts designated as the District of Montreal and the District of Quebec. The Director has his office at Montreal and an Assistant Director at Quebec city. Working under these Directors, are two deputies.

The Police Force is itself divided into three sections: the detective corps, the constabulary and the traffic officers, each of which, in the two Districts, is in charge of a captain supported by a number of lieutenants and sergeants. This Police Force, which has for years enjoyed an enviable reputation for the successful policing of Quebec's highways and for its great efficiency in solving crimes, has been in course of reorganization for the past three years. During this time, the highway motorcycle patrol has been gradually replaced by a fleet of automobiles which have proved much more efficient, especially during the winter months.

The first installation of a province-wide frequency modulation radio-communication system has been established in the District of Montreal. A main station is operating on the top of Mount Royal which is directing radio-equipped cars over an area of between 60 and 80 miles around Montreal; broadcasting is made in the 35·22 band. Statistics are not available at the present time, but an idea of the amount of work done is easily conceived from the fact that over 20,000 calls were put through the antenna of the main radio station during 1946. Sub-stations are operating at each of the eight bridges giving access to or exit from the city of Montreal itself and a number of cars, all equipped with frequency modulation three-way radio units, are patrolling the surrounding country day and night.

The Quebec Provincial Police Force, well-trained and alert, is in a position to provide the citizens of the Province with the protection they have a right to expect from it.

Ontario Provincial Police.—The Ontario Provincial Police is maintained by the Government of the Province of Ontario under the Attorney-General's Department. The Force is responsible for law enforcement in the rural and unorganized parts of the Province, and in certain municipalities by contract.

History relates that in July, 1875, John Wilson Murray was appointed to act as "Detective for the Provincial Government of Ontario" to pursue criminals and "run them down" in their havens of refuge. Murray performed his varied duties under the direction of Sir Oliver Mowat, the Attorney-General of the Province. At the time of Confederation and the first session of the first Parliament of Ontario in December, 1867, there were a number of rural, or Provincial Police. These officers were unpaid and if any remuneration was received for their services it was derived through the fee system.

In 1877 a major reform occurred when under the Constables Act (R.S.O. 1877, c. 72) the necessity of giving certain constables jurisdiction throughout the Province was recognized. County judges were authorized to allocate Provincial Constables to every county and district in Ontario.

Later, the opening up of the mining areas in the north of the Province and the accompanying lawlessness brought to the fore the realization that more adequate law-enforcement measures were a necessity. Consequently, an Order in Council dated Oct. 13, 1909 (confirmed by 10 Edw. VII, c. 39, 1910) was passed providing for the establishment of the "Ontario Provincial Police Force", to be composed of a Superintendent and such inspectors and constables as were deemed necessary. The officers were stationed throughout the northern portion of the Province and at all border points in southern Ontario. The Force was completely reorganized; in 1921, under the authority of the Ontario Provincial Police Act, the appointment of a Commissioner of Police for Ontario was made and the strength of the Force considerably increased.

The Constables Act was amended in 1929 with a view to establishing closer relationship and co-operation between the Provincial Police Force and County Constabularies. Twenty-eight counties took advantage of this legislation and a member of the Ontario Provincial Police was appointed as Acting High Constable in each of these counties. In 1929 also, an Ontario Provincial Police Training School was established at General Headquarters for the tuition and guidance of recruits.

In March, 1930, the control and administration of the officers who had been enforcing the Highway Traffic Act under the supervision of the Department of Public Highways was transferred to the Department of the Attorney-General under the Commissioner of the Ontario Provincial Police. A combined Provincial and Municipal Police Training School was inaugurated at Toronto in March, 1935. This school provides advanced training in medical, legal, scientific and technical activities for provincial and municipal police officers.

In the foreboding days of August, 1939, when war appeared inevitable, the Ontario Government organized "The Veterans' Guard of the Ontario Provincial Police" with a maximum strength of 750. The duties of this guard, under the direct supervision of the Ontario Provincial Police, were to guard all Ontario Hydro Power Commission hydraulic plants and dams throughout the Province. It is a point worthy of note that during the entire period of international conflict not one case of sabotage was reported.

By the Police Act, 1946, proclaimed Feb. 1, 1947, all former legislation and amendments dealing with constables were repealed. Under this Act, the duties and responsibilities of police forces are, for the first time in the history of the Province, definitely defined. Up to Mar. 31, 1947, 34 municipalities have availed themselves of the provisions of the Police Act, for the policing of their municipalities by the Ontario Provincial Police.

At present the Force, with a strength of approximately 650, consists of a General Headquarters at Toronto and 14 Districts with headquarters at: Chatham, London, Dundas, Niagara Falls, Aurora, Mount Forest, Barrie, Belleville, Perth, Haileybury, Sudbury, Cochrane, Port Arthur, and Kenora. Each district is divided into detachments to adequately meet law-enforcement requirements. A Criminal Investigation Branch of the Force, under the command of a Chief Inspector, is maintained at Toronto. This Branch investigates crimes of a major nature. At the present time, a frequency modulation radio-communication system is being installed to assist the Force in coping with the ever-increasing demands of law enforcement.

British Columbia Provincial Police.—The organization of a permanent police force in British Columbia followed the influx of gold seekers on the Fraser River in 1858. Prior to this time police protection on Vancouver Island had been of a volunteer nature, the settlers themselves forming posses to apprehend flagrant law breakers.

On July 7, 1858, a Commissioner of Police was appointed together with a chief constable, a sergeant and four or five constables and a staff to maintain a gaol for Vancouver Island. The Governor was alive to the necessity of a police force for the gold-field area of British Columbia and Gold Commissioners were appointed under "The Goldfields Act" to each of whom were assigned six police officers. Instructions, however, came from the Governor.

The Commissioner continued the supervision of the police on Vancouver Island, acting at the same time as Magistrate for the community at Victoria.

It will be seen from these regulations that control of the police was somewhat divided but in 1866 the Crown colonies of Vancouver Island and British Columbia were united and the police came under one head at Victoria. New territory was opened up and local justices of the peace were empowered to swear in special constables in cases of necessity.

In these early days the duties of a constable were interwoven with the tasks of other Government branches such as the collection of revenue and other offices unrelated to law enforcement. As time went on, however, the duties gravitated to full-time police service and police districts were established under the control of a Chief Constable who, in turn, was responsible to the Chief Inspector (later the Superintendent). With minor changes, this system continued until 1923 when, by the Police and Prisons Regulations Act, 1923, semi-military ranks were adopted and the Province was divided into Divisions, Districts and Detachments for administration purposes. There are now 5 Divisions, 2 Subdivisions, 27 Districts and 114 Detachments with a total strength of 431 all ranks.

A training school is operated at Headquarters, shortwave radio is used extensively connecting 23 key stations throughout the Province and 8 police boats patrolling the coast are also equipped with shortwave and voice transmission. A Criminal Investigation Branch is operative at Headquarters.

Provincial Police also assist Dominion as well as Provincial Departments seeking their aid and municipalities in 1925 were afforded the opportunity to contract Provincial Police Protection; 44 cities have signed these contracts since the amendment.

The Provincial Police has contributed invaluable help to youth activities. Talks are given on such subjects as, behaviour, good citizenship, traffic safety, firearms and explosives, camping and camp precautions, first aid, etc. Voluntary assistance is also rendered to promote sports and games, and youth organizations call upon individual members of the Provincial police for instruction.

Section 3.—Municipal Police Statistics

Police statistics were collected from 190 cities and towns of 4,000 or over population in 1945. The aggregate population of this group of cities and towns was 5,108,995 (1941) and the total number of policemen was 6,086 or one for every 839 of population.

A total of 501,294 offences were reported to the police. Arrests numbered 142,135 and 245,795 summonses were issued.

Automobiles stolen numbered 10,805 with 10,775 recovered. Bicycles stolen numbered 18,856 with 15,705 recovered. The value of other goods reported to the police as stolen was $3,632,294. Value of stolen goods recovered totalled $1,951,770.

Automobile accidents recorded numbered 46,826 as the result of which 503 persons were killed and 14,282 injured; other accidents reported, 679 persons were killed and 9,983 injured.

Persons given shelter in police stations numbered 34,363 as against 30,226 in 1944, and 10,070 stray children were returned to their homes.

1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over, 1945

Province and Urban Centre	Population 1941	Police on Force	Arrests	Summonses	Prosecutions	Convictions
	No.	No.	No.	No.	No.	No.
Prince Edward Island—						
Charlottetown	14,821	15	797	227	1,024	951
Totals, Prince Edward Island[1]	**19,855**	**20**	**1,074**	**248**	**1,313**	**1,217**
Nova Scotia—						
Halifax	70,488	110	2,281	1,587	3,868	3,508
Sydney	28,305	26	1,080	549	1,500	1,405
Glace Bay	25,147	19	982	60	865	748
Dartmouth	10,847	11	374	130	504	480
Truro	10,272	5	704	24	687	554
Totals, Nova Scotia[1]	**211,651**	**208**	**8,107**	**2,997**	**10,360**	**9,363**
New Brunswick—						
Saint John	51,741	77	3,541	2,610	3,708	3,658
Moncton	22,763	32	1,551	236	1,787	1,704
Fredericton	10,062	8	734	146	866	841
Totals, New Brunswick[1]	**107,000**	**132**	**6,314**	**3,135**	**6,954**	**6,778**
Quebec—						
Montreal	903,007	1,346	32,919	52,224	85,143	80,000[2]
Quebec	150,757	172	2,301	1,214	3,515	3,276
Verdun	67,349	51	1,900	95	1,975	1,517
Three Rivers	42,007	69	980	75	1,055	1,046
Sherbrooke	35,965	40	918	174	1,092	1,085
Hull	32,947	31	1,458	1,174	2,632	2,465
Outremont	30,751	41	1,658	1,001	2,659	2,577
Westmount	26,047	47	3,184	261	3,331	3,285
Lachine	20,501	22	282	31	231	222
Shawinigan Falls	20,325	34	490	159	649	230
St. Hyacinthe	17,798	26	317	10	75	50
Valleyfield	17,052	23	208	64	226	207
Chicoutimi	16,040	13	186	10	196	124
Granby	14,197	10	94	14	108	88
Jonquière	13,769	11	60	28	88	56
St. Jean	13,646	13	42	10	52	39
Joliette	12,749	19	17	17	34	17
Thetford Mines	12,716	10	83	24	107	85
Sorel	12,251	15	417	5	422	311
Lévis	11,991	15	209	41	250	209
Cap-de-la-Madeleine	11,961	12	66	14	70	51
St. Jérôme	11,329	15	138	5	96	96
Drummondville	10,555	10	156	10	166	151
Totals, Quebec[1]	**1,696,155**	**2,231**	**50,795**	**57,840**	**107,298**	**100,017**
Ontario—						
Toronto	667,457	902	20,865	79,724	100,589	88,149
Hamilton	166,337	160	3,336	19,089	22,425	20,917
Ottawa	154,951	157	1,804	4,190	5,994	5,475
Windsor	105,311	128	2,952	4,035	5,809	4,284
London	78,264	82	1,231	1,980	3,211	2,673
Kitchener	35,657	27	584	2,598	3,182	2,657

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[1] Includes figures for all urban centres having populations of 4,000 or over. [2] Estimated.

1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over, 1945—concluded

Province and Urban Centre	Population 1941	Police on Force	Arrests	Summonses	Prosecutions	Convictions
	No.	No.	No.	No.	No.	No.
Ontario—concluded						
Sudbury	32,203	27	2,230	2,313	4,543	3,438
Brantford	31,948	26	518	1,034	1,312	1,230
Fort William	30,585	26	979	163	1,131	1,088
St. Catharines	30,275	29	533	470	1,003	749
Kingston	30,126	27	597	927	1,524	1,384
Timmins	28,790	21	817	581	1,324	1,054
Oshawa	26,813	21	612	1,235	1,847	1,750
Sault Ste. Marie	25,794	20	552	587	1,080	990
Peterborough	25,350	24	699	674	1,373	1,136
Port Arthur	24,426	23	1,738	214	1,952	1,876
Guelph	23,273	17	359	708	1,067	946
Niagara Falls	20,589	35	598	512	1,110	896
Sarnia	18,734	18	286	820	1,106	1,070
Chatham	17,369	17	357	1,393	1,468	1,326
St. Thomas	17,132	9	315	128	443	399
Stratford	17,038	12	197	464	661	636
Belleville	15,710	13	975	652	1,607	1,498
North Bay	15,599	13	459	290	749	680
Galt	15,346	10	177	287	464	412
Cornwall	14,117	15	300	258	558	535
Owen Sound	14,002	10	165	716	881	709
Welland	12,500	15	251	583	834	687
Woodstock	12,461	13	366	294	660	571
Forest Hill	11,757	16	51	294	345	324
Brockville	11,342	10	467	241	708	665
Pembroke	11,159	7	372	320	692	677
Totals, Ontario[1]	**2,021,470**	**2,143**	**50,979**	**137,461**	**185,923**	**163,834**
Manitoba—						
Winnipeg	221,960	297	4,897	16,896	20,349	18,342
St. Boniface	18,157	14	292	1,134	1,426	1,158
Brandon	17,383	17	266	191	457	407
Totals, Manitoba[1]	**279,759**	**347**	**5,879**	**18,690**	**23,125**	**20,745**
Saskatchewan—						
Regina	58,245	60	1,077	1,343	2,383	2,218
Saskatoon	43,027	34	755	903	1,658	1,512
Moose Jaw	20,753	20	478	365	843	738
Prince Albert	12,508	11	634	200	758	715
Totals, Saskatchewan[1]	**160,639**	**147**	**3,211**	**3,416**	**6,514**	**6,008**
Alberta—						
Edmonton	93,817	103	1,550	705	2,255	2,019
Calgary	88,904	100	2,883	2,207	5,090	4,078
Lethbridge	14,612	15	397	883	1,280	1,161
Medicine Hat	10,571	11	88	160	248	220
Totals, Alberta	**207,904**	**229**	**4,918**	**3,955**	8,873	**7,478**
British Columbia—						
Vancouver	275,353	476	8,006	11,667	17,232	13,507
Victoria	44,068	58	529	3,599	4,128	3,977
New Westminster	21,967	21	613	861	1,474	1,433
Totals, British Columbia[1]	**404,562**	**629**	**10,858**	**18,053**	**26,255**	**22,119**
Grand Totals[1]	**5,108,995**	**6,086**	**142,135**	**245,795**	**376,555**	**337,559**

[1] Includes figures for all urban centres having populations of 4,000 or over.

PART IV.—PENITENTIARY AND REFORMATORY INSTITUTIONS

Section 1.—Penitentiary Statistics*

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Seven institutions are included in the system, the two largest of which are at Portsmouth, Ont., and St. Vincent de Paul, Que., while the other five are at Dorchester, N.B.; Prince Albert, Sask.; Stony Mountain, Man.; New Westminster, B.C.; and Collins Bay, Ont. During the fiscal year ended Mar. 31, 1946, the average daily population of these institutions was 3,174·5 and the total net cash outlay for the year was $3,165,042 or $2·73 per convict per diem, compared with 3,028 average daily population and $2,689,059 total net cash outlay or $2·43 per convict per diem for the year 1941.

Female convicts given penitentiary sentences in the different provinces are sent to the penitentiary at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision. Female convicts in custody on Mar. 31, 1946, numbered 52 compared with 43 in 1944 and 46 in 1941.

Movement of Population of Penal Institutions.—Penal institutions may be classified under three headings: (1) penitentiaries, with slow turnover, since prisoners have long sentences; (2) reformatories and training schools, also with rather slow turnover; and (3) common gaols, where the turnover is extremely rapid. If the average population for the year be taken as the average of the figures for inmates at the beginning and at the end of the year, and the number discharged be the turnover, the percentage turnover in fiscal year 1945-46 was: in penitentiaries, 48·1 p.c.; in reformatories and training schools, 164 p.c.; in gaols, no less than 1,728 p.c. In dealing with these figures it must be borne in mind that the common gaol population changes from day to day, and is partly made up of accused persons awaiting trial who may be either liberated or sent to a penitentiary or reformatory.

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* Revised in co-operation with the Superintendent of Penitentiaries, Department of Justice, Ottawa.

1.—Population of Penal Institutions, for Twelve-Month Periods (Circa) 1943-45

Year and Type of Institution	In Custody, Beginning of Year	Admitted During Year	Discharged During Year	In Custody, End of Year
1943				
Penitentiaries	3,232	1,299	1,562	2,969
Reformatories and training schools	3,863	7,769	6,941	4,691
Gaols	3,356	54,006	54,160	3,202
Totals, 1943	**10,451**	**63,074**	**62,663**	**10,862**
1944				
Penitentiaries	2,969	1,670	1,561	3,078
Reformatories and training schools	4,691	7,973	7,822	4,842
Gaols	3,202	56,286	56,196	3,302
Totals, 1944	**10,862**	**65,929**	**65,579**	**11,222**
1945				
Penitentiaries	3,078	1,472	1,421	3,129
Reformatories and training schools	4,828	7,715	7,898	4,645
Gaols	3,299	57,237	56,511	4,025
Totals, 1945	**11,205**	**66,424**	**65,830**	**11,799**

Tables 2 and 4 give the more important penitentiary statistics as reported to the Bureau of Statistics. The number of convicts in penitentiaries was 1,865 in 1911, rose to 2,118 in 1916 and declined to 1,468 in 1918. After demobilization and the depression of 1921, the number of convicts rose to 2,640 in 1922, declined to 2,225 in 1924 and then increased to 4,587 in 1933. The increase was particularly rapid after 1929, amounting to 1,818 or 65·7 p.c. in three years. The number of convicts in 1936, at 3,098, was lower than in any year since 1929, but in 1937 there was an increase of 5·4 p.c. with further increases of 9·7 p.c. in 1938 and 6·2 p.c. in 1939. By 1943 a decrease of 21·9 p.c. over the 1939 figure was shown, but in 1946 there was an increase of 7·4 p.c. over 1945. The number of paroles (ticket-of-leave) was 216 in 1946.

2.—Movement of Convicts in Penitentiaries, Years Ended Mar. 31, 1942-46

Item	1942	1943	1944	1945	1946
In Custody, Beginnings of Years	**3,688**	**3,232**	**2,969**	**3,078**	**3,129**
Received—					
From gaols	1,094	1,154	1,348	1,312	1,579
By transfer	145	143	320	157	206
By cancellation of ticket-of-leave	1	Nil	2	1	Nil
Revocation of licence	1	"	Nil	Nil	1
From Military Authorities (prisoners of war)	Nil	2	"	"	8
Paroled for Active Service and returned	"	Nil	"	2	Nil
Totals, Received	1,241	1,299	1,670	1,472	1,794
Discharged—					
By expiry of sentence	1,258	1,081	928	880	1,014
By transfer	145	143	320	157	206
By ticket-of-leave	232	264	243	320	216
By deportation	9	15	10	22	13
By unconditional release	18	28	35	15	9
By death	14	11	7	11	11
By pardon	14	13	9	8	10
Released to Military Authorities	1	Nil	Nil	2	77
By release on order of court	5	4	6	4	3
By return to provincial authorities	1	3	2	1	2
By transfer to Boy's Industrial School	Nil	Nil	1	1	Nil
Totals, Discharged	1,697	1,562	1,561	1,421	1,561
In Custody, Ends of Years	**3,232**	**2,969**	**3,078**	**3,129**	**3,362**

Table 3 shows the ages of convicts by groups. In 1946, of the total of 3,362, 13 p.c. were under 21 years of age and 45 p.c. between 21 and 30 years of age; thus, 58 p.c. were 30 years of age or less. In 1914, there were 2,003 convicts of whom 9·3 p.c. were under 20 and 44·4 p.c. between 20 and 30, a total of 53·7 p.c. under 30. In 1923, there were 2,486 convicts and 11·3 p.c. were under 20, 46·6 p.c. between 20 and 30, or 57·9 p.c. under 30 years of age. Detailed statistics of the place of birth, conjugal state, sex and religion of convicts are presented in Table 4.

3.—Ages of Convicts in Penitentiaries, as at Mar. 31, 1939-46

Age Group	1939	1940	1941	1942	1943	1944	1945	1946
Under 21 years	390	463	465	421	447	486	455	452
21 to 30 "	1,592	1,574	1,473	1,283	1,168	1,288	1,386	1,529
31 to 40 "	1,080	1,040	995	837	705	676	676	750
41 to 50 "	442	430	477	420	395	398	395	390
51 to 60 "	207	188	191	191	182	160	152	174
Over 60 "	92	77[1]	87	80	72	70	65	67
Totals	**3,803**	**3,772**	**3,688**	**3,232**	**2,969**	**3,078**	**3,129**	**3,362**

[1] Includes one unknown.

4.—Convicts in Penitentiaries, Classified by Birthplace, Religion, etc., as at Mar. 31, 1939-46

Item	1939	1940	1941	1942	1943	1944	1945	1946
Place of Birth—								
Canada	3,028	3,028	3,010	2,645	2,451	2,599	2,700	2,989
British Isles and possessions	301	302	259	190	163	179	169	143
Austria and Hungary	60	52	44	43	37	34	13	14
Italy	42	33	32	29	24	15	13	11
Poland	38	65	67	54	43	35	34	33
Russia	54	41	38	41	37	33	42	30
Other Europe	40	37	58	44	49	31	58	43
United States	125	118	112	117	111	95	91	83
Other countries	115	96	68	69	54	57	9	16
Conjugal Condition—								
Single	2,548	2,539	2,446	2,154	1,983	1,990	1,987	2,144
Married	1,005	980	994	878	785	875	936	1,019
Widowed	131	145	143	121	110	120	117	105
Divorced	38	33	105	47	40	35	31	29
Separated	81	75	[1]	32	51	58	58	65
Sex—								
Male	3,769	3,741	3,642	3,195	2,917	3,035	3,077	3,310
Female	34	31	46	37	52	43	52	52
Religion—								
Anglican	518	548	513	483	505	506	516	587
Baptist	179	162	134	135	126	122	136	122
Doukhobor	3	5	6	4	3	2	19	16
Eastern religions	[1]	[1]	5	[1]	[1]	[1]	3	[1]
Greek Catholic	49	41	32	33	27	20	11	12
Greek Orthodox	47	54	39	40	35	36	27	34
Jewish	63	52	62	56	52	55	44	48
Lutheran	89	76	81	76	67	62	59	57
Methodist	418	35	44	29	34	37	34	28
Presbyterian	319	348	358	274	214	233	275	294
Roman Catholic	1.938	1,897	1,841	1,614	1,473	1,597	1,534	1,705
Salvation Army	14	22	18	17	16	20	21	21
United Church	[1]	370	369	328	302	293	323	309
Others	166	162	186	143	115	95	127	129
Totals	**3,803**	**3,772**	**3,688**	**3,232**	**2,969**	**3,078**	**3,129**	**3,362**

[1] None reported.

Section 2.—The Ticket-of-Leave System*

The Ticket-of-Leave or Parole System rests on the power of the court to suspend, conditionally, the imposition or the execution of a sentence.

Its aim is to achieve, through the substitution of a form of control or treatment, the reformation or civil rehabilitation of a prisoner outside of close imprisonment. The beginning of the British ticket-of-leave system began in 1660 by statute, when power was given judges to transport prisoners to the colonies, where, after a penal settlement period was fulfilled, they were allowed for the remainder of their sentence the freedom of the colony, under certain restrictions. All such prisoners were prohibited from carrying firearms and had to report monthly, quarterly or yearly for inspection to the authorities. By 1840, transportation of prisoners was disallowed but a new policy of imprisonment was inaugurated under which all long-term convicts must pass through the prisons for a period before conditional release on Ticket-of-Leave could be granted. When released, the convict is kept under the surveillance of the police and reports at stated periods. He is returned to prison for any infraction of this Ticket-of-Leave licence. The British system is altogether automatic in operation.

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* Prepared under the direction of Commissioner S. T. Wood, C.M.G., of the Royal Canadian Mounted Police.

Other countries have also adopted the parole system. It was accepted in Germany in 1871, the Netherlands in 1881, Japan in 1882, the French Republic in 1885 and has since been used by Austria, Italy and Portugal. A number of the States in the United States have now a system of parole or conditional liberation in force for prisoners.

In Canada the parole system was first adopted for penitentiaries in 1899 and was later extended to include gaols and reformatories. In this the Canadian system differs from every other parole system in the world. The parole system was legalized under R.S.C. 1927, c. 197, and is known as the Ticket-of-Leave Act.

It is the duty of the Minister of Justice to advise the Governor General on all matters connected with or affecting the administration of the Ticket-of-Leave Act. By an order in writing, under the hand and seal of the Secretary of State, the Governor General may grant to any prisoner under sentence of imprisonment in a penitentiary, gaol or other public prison or reformatory Ticket-of-Leave to be at large in Canada or any specified part thereof during such portion of his or her term of imprisonment and upon such conditions in all respects as the Governor General may see fit.

The working of the Ticket-of-Leave Act in Canada is in this manner:—

Any convict serving a prison term, or any person on behalf of a prisoner, may make application through the Minister of Justice for a Ticket-of-Leave. Each application, whether received from the most humble petitioner or from a person of high standing in the State or the community, receives the same very careful attention. Reports and opinions are requested from the trial Judge, the police who handled the case and the warden of the prison where the prisoner is incarcerated. The past environment and the previous criminal record, if any, of the prisoner are studied. All the circumstances in each case are carefully considered by well qualified investigators in the Remission Service Branch of the Department of Justice. If the consensus of opinion is that the prisoner has profited by the time spent in prison and it is felt that an exercise of clemency at that time will result in the prisoner becoming rehabilitated and again a useful member of society; and if honest, gainful employment and proper supervision are assured, then the Solicitor General recommends to His Excellency the Governor General that the subject be released to serve the remainder of his sentence under the restraint of a Ticket-of-Leave. The Governor General approves by placing his official signature thereon. The offender is then issued with a Ticket-of-Leave licence under the hand and seal of the Secretary of State and is released from prison to serve the remaining portion of his sentence at large, subject to the conditions and provisos laid down in his licence.

The Commissioner of the Royal Canadian Mounted Police has been designated by the Ticket-of-Leave Act to enforce the conditions under which each Ticket-of-Leave subject is liberated. This he does through the Ticket-of-Leave Section, Identification Branch, located at Ottawa.

Every holder of a Ticket-of-Leave licence, upon release, is required to notify the place of his residence to the Chief Officer of Police or Sheriff of the city, town or district in which he resides and, whenever he is about to leave a city, town, county or district he is obliged to notify such intention to the said Police Officer or Sheriff of that place stating the place to which he is going and, if possible, his intended address. Upon arrival at his new destination he is required to notify the local Police Officer or Sheriff. Further, each male Ticket-of-Leave subject is required to report once each month, so long as his Ticket-of-Leave period is in force, to the Chief Police Officer or Sheriff of the place in which he resides, unless this condition has been remitted by the Order of the Governor General.

A Ticket-of-Leave subject must produce his licence if called upon to do so by a magistrate or police officer; he is required to abstain from any violation of the law; shall not habitually associate with notoriously bad characters such as reputed thieves and prostitutes; he shall not lead an idle and dissolute life without visible means of obtaining an honest livelihood and is required to carry out any further additional condition that has for reason been attached to his licence.

The Ticket-of-Leave Branch receives very efficient co-operation from the police forces throughout the country. Through their help, record is kept of each Ticket-of-Leave subject at large in Canada and monthly reports are forwarded to Headquarters. Most police forces treat Ticket-of-Leave information as strictly confidential; exercise care in protecting those concerned from embarrassment; give sympathetic consideration to the problems of these unfortunates and are ever ready to give assistance and helpful advice to anyone who is honestly endeavouring to rehabilitate himself.

He who fails to carry out the minor provisions of his release is at first admonished and given another chance. If, however, no heed is taken of rebuke, the Governor General may order the licence of the subject so transgressing to be revoked. In this case the culprit will be, by warrant, recommitted to prison to serve the portion of his sentence that was unsatisfied at the time he was granted Ticket-of-Leave.

If any holder of a licence under the Ticket-of-Leave Act is convicted of an indictable offence, his licence is forfeited. This is the only automatic feature of the Canadian Ticket-of-Leave system. In the case of forefeiture, the subject must first complete the sentence given on account of the indictable offence; he is then recommitted by warrant to prison to serve the portion of the former sentence that remained unsatisfied when he was granted Ticket-of-Leave.

The Ticket-of-Leave subject is not pampered. He is made to realize that he has been justly punished by imprisonment for offence committed and that judgment has been tempered with mercy by permitting him to serve part of his just sentence at large under the mild restraint of a Ticket-of-Leave licence. On the other hand, no unjust advantage may be taken of him. He has all the rights and liberties of any free Canadian citizen to engage in any honest enterprise or occupation and is fully protected by law from any impositions whatever.

The number of prisoners released on Ticket-of-Leave each year from penitentiaries, gaols and reformatories varies between 700 and 1,000 persons. From the time the system was inaugurated in the year 1899 to the fiscal year ended Mar. 31, 1946, 34,156 offenders have been so released. During the 47 years Ticket-of-Leave has been in operation in Canada, only 5·5 p.c. of the total number released have lapsed into crime that has necessitated return to prison.

Criticism is occasionally heard when publicity is given to some case of a Ticket-of-Leave subject who is again convicted of crime. Because of the strictly confidential nature of this work, nothing is ever heard of the more than 90 p.c.

of subjects who become useful and respected citizens. The Canadian Ticket-of-Leave system has indeed proven well worth while from a humanitarian as well as from an economical standpoint. The following statement gives a report of the Ticket-of-Leave Section from its inauguration to Mar. 31, 1946.

	No.
Released on Ticket-of-Leave from penitentiaries	15,501
Released on Ticket-of-Leave from gaols and reformatories of all classes	18,655
Total Releases	34,156
Revocations and cancellations of licences for failure to comply with conditions	941
Forfeitures of licences on account of convictions of indictable offences	933
Sentences completed on Ticket-of-Leave in good standing	31,833
Sentences not yet completed	449
Delinquent percentage	5·5

Section 3.—Statistics of Corrective and Reformative Institutions

On June 1, 1946, there were 24 corrective and reformative institutions in Canada with a total inmate population of 3,662; of this number 2,930 were males and 732 were females. Of the total number of institutions, 13 were for males and 11 for females.

5.—Inmates of Corrective and Reformative Institutions, by Age Groups, as at June 1, 1946

Note.—These institutions report at five-year intervals: figures given in this table are preliminary figures for the year 1946.

Institutions and Age Group		N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
		No.	No.	No.	No.	No.	No.	No.	No.	No.
Institutions	M.	2	2	2	5	1	Nil	Nil	1	13
	F.	2	1	2	3	1	“	1	1	11
Under 10 years	M.	23	3	15	22	Nil	1	Nil	1	65
	F.	Nil	5	7	Nil	“	Nil	“	Nil	12
10–14 “	M.	137	44	361	253	19	20	“	39	873
	F.	57	31	74	48	10	Nil	15	7	242
15–19 “	M.	15	12	250	576	28	18	Nil	34	933
	F.	39	63	77	93	32	Nil	16	10	330
20–24 “	M.	Nil	Nil	Nil	436	Nil	“	Nil	Nil	436
	F.	2	19	“	35	“	“	1	“	57
25–29 “	M.	Nil	Nil	“	201	“	“	Nil	“	201
	F.	“	9	“	15	“	“	“	“	24
30–34 “	M.	“	Nil	“	116	“	“	“	“	116
	F.	1	5	“	17	“	“	“	“	23
35–39 “	M.	Nil	Nil	“	92	“	“	“	“	92
	F.	“	3	“	14	“	“	“	“	17
40–44 “	M.	“	Nil	“	73	“	“	“	“	73
	F.	“	1	“	15	“	“	“	“	16
45–49 “	M.	“	Nil	“	76	“	“	“	“	76
	F.	“	“	“	9	“	“	“	“	9
50–59 “	M.	“	“	“	44	“	“	“	“	44
	F.	“	1	“	1	“	“	“	“	2
60 or over	M.	“	Nil	“	21	“	“	“	“	21
	F.	“	“	“	Nil	“	“	“	“	–
Totals	**M.**	**175**	**59**	**626**	**1,910**	**47**	**39**	**–**	**74**	**2,930**
	F.	**99**	**137**	**158**	**247**	**42**	**–**	**32**	**17**	**732**

CHAPTER X.—EDUCATION AND RESEARCH*

CONSPECTUS

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According to the British North America Act, education is a function of the Provincial Governments and, therefore, the schools and universities, teacher training and other matters involved in the formal educational field are planned, financed and controlled by the provinces.

However, in a broad sense, education cannot be limited to merely what is taught in schools and colleges. It is as broad as life and experience itself and, for that reason, this Chapter of the Year Book deals also with such subjects as libraries, art and scientific research. Certain agencies of the Dominion Government, while not in any sense in conflict with the formal field of education ascribed by the Constitution to the provinces, have functions that concern education. Among these agencies are the National Film Board and the Canadian Broadcasting Corporation. Thus, while the Canadian Broadcasting Corporation is engaged more in the field of entertainment and recreation than in that of education, there are aspects of its work that are properly included in the broader field. These are dealt with in Section 3 of Part II of this Chapter and cross references are given to those non-educational features of these agencies that are dealt with elsewhere in the Year Book.

PART I.—THE FORMAL EDUCATIONAL FIELD IN CANADA

Section 1.—The Current Situation in Canadian Education

The impact of two world wars, improved transportation and communication, and other contributing factors have not only complicated living, provided more leisure and annihilated former geographic barriers but have also increased the need for formal education and made greater demands for successful citizenship. Realization of the possible contribution of the schools to the economic and social life of the State has given an impetus to education and resulted in co-operation, as well as friendly rivalry, among the provinces.

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* Prepared or revised, except for those parts otherwise indicated, under the direction of J. E. Robbins, Chief, Education Statistics Branch, Dominion Bureau of Statistics.

Certain non-government educational bodies, begun on provincial or lower level, have now become national in scope. These include: the Canadian Education Association, the Canadian School Trustees' Association, the Canadian Teachers' Federation, the Canadian Federation of Home and School, and the Canadian Association for Adult Education.

In addition, there are a number of organizations primarily directed to other ends that devote considerable effort to education: for example, the Junior Red Cross, the Boy Scouts, the Girl Guides, the cadet leagues, etc. The National Film Board and the Canadian Broadcasting Corporation, while not primarily interested in formal education, have been, with the collaboration of school authorities, extending their services to the schools of all provinces (see pp. 304-307).

Again, proximity to the United States and close relationship with other members of the British Commonwealth, particularly with Great Britain, have enabled Canada's education departments to benefit greatly from innovations and experiments conducted outside Canada.

The educational press is still essentially provincial in scope, although a quarterly publication, *Canadian Education*, designed for national circulation, was established by the Canadian Education Association in 1945.

In past years, there has been a tendency for Canadian teachers to restrict their experience to the provincial area where they have received their training, particularly in those provinces where average salaries are comparatively high. Superannuation funds require continuity in service and proposals to enter other provinces have not been encouraged, irrespective of the qualifications of the teacher. During the war years, however, the acute shortage of teachers tended to modify this practice. Another influence counteracting this 'provincialism', is an arrangement for the exchange of teachers carried out under an interprovincial committee of the Canadian Education Association. In 1946, 50 Canadian teachers were on exchange with provinces other than their own, 17 of whom were in Ontario. There were also 20 visiting teachers from Great Britain in that Province. To facilitate such exchanges, private interests have donated 50 bursaries of $50 each to help defray the travelling expenses of teachers taking exchange positions in other provinces or in Newfoundland. Unfortunately, the effect of this exchange, apart from being beneficial to the teachers concerned, is not felt outside the larger urban areas. The Canadian Education Association, working in co-operation with the League of Empire, hopes to arrange from 20 to 30 exchanges between Canada and the United Kingdom for the 1947-48 school year.

Advantages having an equally broadening effect as those that accrue to pupils from the exchange of teachers come from increased use of visual aids in social studies and select radio programs that are designed to build more accurate concepts of, and healthier attitudes towards other people. Correspondence with 'pen pals' in other countries is becoming more popular and helps to break down racial prejudice and insularity.

Teacher Supply.—Shortage of teachers is still prevalent in most provinces. The fact that comparatively few pupils are without all educational facilities and few schools remain closed for lack of teachers, is due to the transportation of pupils to neighbouring schools and use of correspondence courses. Teacher supply has been a serious problem for some time and will continue as such for the next few years at least.

The Canadian Education Association, at its convention in 1946, devoted time to a consideration of the problem of teacher supply and expedients to overcome the shortage, including the preparation of booklets setting forth facts and figures relating to the teaching profession and showing advantages from joining its ranks. In Alberta, the Normal Schools were absorbed by the College of Education so that all teachers are now college entrants on the way to obtaining a degree in education. They may interrupt their college course at the end of any year to engage in teaching and return at any time to pick up additional credits. The Alberta Government has made provision for paying tuition amounting to about $145 for promising students. Saskatchewan now credits training in Normal as one year in college. The College of Education offers an undergraduate degree while continuing their classes for graduate students towards the M.Ed. degree. Saskatchewan offers veterans a short Normal course of six months if enough apply to ensure a class of 12. Twenty units have employed veteran teachers in an audio-visual capacity to provide film shows for schools and adult groups in the district.

Manitoba has provided the first residential Normal School in Canada capable of housing sufficient students for replacments in the teaching profession. By making provision for the students to work part time and to borrow money where necessary, no student is kept from professional training by lack of funds and each is sure of a position when graduated.

The in-service training of teachers has received considerable attention and varies from planning institutes culminating in convention programs to better supervision and library facilities. Teachers are still encouraged to attend summer schools, take extra-mural classes and enroll for advanced work. Departmental and other libraries have been provided, from which teachers are encouraged to borrow professional books. New courses are being organized for summer schools stressing rural sociology, citizenship training, shopwork and industrial arts while more opportunity is given for diversification in high-school courses through the organization of composite high schools, and municipal or other larger unit high schools in rural areas. Increased and improved supervision has been effected to raise the standard of teaching.

Teachers' Salaries.—To offset the serious exodus of teachers from the profession, considerable headway has been made in adjusting salaries to a scale more in keeping with the duties and responsibilities involved and so making the profession more attractive to those who have the ability and character to make it a life-work.

While a comparison of average salaries in pre-depression years with those received now is not possible for all provinces, available data for certain provinces are indicative of trends although they do not tell the whole story. In New Brunswick in the school years ended in 1930, 1940 and 1945, male third-class teachers received an average of $534, $391 and $611, respectively, while female third-class teachers received $519, $391 and $593. Second-class male teachers received $762, $499 and $860 while female teachers received $666, $510 and $815 for the same years. The same trend is shown for first-class teachers although the grouping of first-class and superior-school teachers in 1945 makes a comparison of salaries more difficult. Grammar-school teachers on an average received $2,042, $1,918 and $2,380 for 1930, 1940 and 1945, respectively.

In Ontario the principal of a secondary school received average salaries of $3,293, $2,942 and $3,169 for the school years ended in 1930, 1940 and 1945, respectively. The averages for male assistants for the same years were $2,698, $2,325 and $2,627 and for female assistants $2,175, $1,994 and $2,207. For the same years a male teacher in a public school received averages of $1,720, $1,434 and $2,023 and a female teacher received $1,190, $1,077 and $1,355. A male public-school teacher in a city received $2,320, $2,257 and $2,586 and a female teacher received $1,514, $1,559 and $1,652; a male teacher in a rural district received $1,195, $888 and $1,335 and a female teacher in a rural area $997, $714 and $1,167, respectively, for the same years.

In Saskatchewan urban male first-class teachers received, on an average, $1,768, $1,019 and $1,840 (estimate), respectively, and female teachers received $1,245, $525 and $1,440 (estimate) for school years ended in 1929, 1939 and 1945. Rural male first-class teachers received $1,774, $598 and $1,300 and female rural first-class teachers received $1,057, $525 and $1,250 for the same periods. Second-class urban male teachers received $1,358, $849 and $1,565 and similarly qualified female teachers $1,130, $822 and $1,359; males with similar qualifications in rural schools received $1,040, $574 and $1,262 and females received $822, $524 and $1,207, respectively, for the same years.

The number of teachers on the staffs of provincially controlled schools, classified according to salary, is given in Table **5**, p. 285.

Adult Education.—For many years "adult education" was concerned only with the provision of night classes for adults who had not had the advantage of public-school education. Classes were at first in charge of day-school teachers who repeated lectures prepared for their day classes. At a later date secondary-school academic subjects were offered and while such classes have been continued they now represent but a small part of adult education as we know it. Courses offered in the secondary schools have increased in scope to include a wide variety of languages, technical and hobby pursuits, drama, art, journalism, public speaking and many others. The "lighted schoolhouse" idea is spreading to remote areas.

The essential values and satisfactions found in meetings of adult members of a community for debate and discussion have multiplied and leadership is received from the Canadian Association for Adult Education. The most important functions of that Association are: to organize a national workshop, to co-ordinate the work of the major adult educational agencies in Canada, to provide ideas and motivation, to make available existing aids and supplies and to conduct experiments and research. At present the major part of the activity comes under: the National Farm Radio Forum; the Citizens' Forum; the publication of *Food for Thought* and the study outlines prepared for Citizens' Forum; the preparing of an integrated pattern of adult education in co-operation with other national organizations in the field of adult education and general leisure-time activities; and the planning of conferences, etc. The work has been expanding so rapidly that the financing of it has become a difficult task.

Universities from coast to coast provide extension courses in general education which vary from lectures and demonstrations to correspondence courses. St. Francis Xavier, for example, fosters co-operative organizations which benefit Nova Scotia and in this regard has earned for itself an international reputation.

In several provinces the Provincial Governments provide directors who help to organize groups in the Province. Saskatchewan fosters action-study-groups, in part as a reaction to studying for studying's sake.

School Buildings.—The need for school buildings of the new 'functional' type is acute. The Canadian Education Association had an exhibit of school building plans from most provinces at their 1946 annual convention. The plans ranged from one-room rural units to large city structures and included community schools of various sizes. It is now generally recognized that the type and location of school units should be based on the needs of the community. The replacement of single-unit schools by more modern structures on a large scale would leave education still saddled with an inefficient and wasteful organization of districts with insufficient wealth or population to provide modern education. The trend towards community high schools increases the number in attendance and improves the quality of the work accomplished. The latest plans include features for the proper use of such educational aids and devices as radio, television and motion pictures. New movable fixtures further indicate the functional, flexible purpose of the school. Painting, decorating and lighting are done with consideration for the psychological effects of colour and the removal of glare and eye strain.

The Relationship of Earnings to Years at School.—While monetary income is not the only benefit to be received from schooling and, in fact, may not be the most important, there is supporting evidence from the 1941 Census to indicate that increased income is associated with increased schooling. In interpreting the data given in Table **1**, however, it should be kept in mind that the graded school is a rather highly selective institution. In most of the provinces a fairly high percentage of pupils leave school through lack of ability, others through lack of interest or personality defects, while still others withdraw for economic reasons. Only some of the latter are comparable in aptitude with those who continue at school.

Increase in income is not due entirely to benefits from schooling. Table **1** shows that there is some increase in income with increased age until the category "65 years or over" is reached, irrespective of years at school. This might be attributed to maturing, experience on the job, more adequate social adjustment, or added acceptance of responsibility. But average earnings of heads of families of $786, $1,054, $1,457 and $2,118 for groups with 1-4, 5-8, 9-12 and 13 or more years of schooling can be related closely to years at school—either from advantages due to material learned, habits acquired, or from training in schools as selective institutions. Percentage increase in earnings is more than enough to compensate for the expense of the additional years of education and the fact that one is not earning while in attendance at school. Those attending 5-8 years earn 133 p.c. as much as those with 1-4 years of schooling; those with 9-12 years of schooling earn 190 p.c. as much as those with 1-4 years of schooling and those 13 or more years earn 269 p.c. of the amounts earned by those who attended 1-4 years.

Only 1·9 p.c. of the heads of families reported "no schooling" while 8·2 p.c. reported 1-4 years; 47·8 p.c. reported 5-8 years; 34·5 p.c. reported 9-12 years; 7·5 p.c. reported 13 or more years of schooling and 0·1 p.c. did not report schooling received. Just what would happen to earnings of the groups if larger percentages received more education is hard to conjecture but there is the possibility that, due to additional competition, income in the higher brackets would be reduced.

Similarity of trend is shown in rural and urban areas for all provinces of Canada. Urban averages, by provinces, are given in Table **1** together with rural and urban averages for all Canada.

1.—Average Yearly Earnings of Heads of Families, Classified by Years of Schooling and Age, for Urban and Rural Canada and Urban by Provinces, School Year 1940-41

Years of Schooling and Age of Head	Urban									Total Urban	Total Rural	Canada
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.			
	$	$	$	$	$	$	$	$	$	$	$	$
No schooling (all ages)	597	887	731	739	890	713	604	724	818	802	552	714
1–4 years of schooling	520	915	743	809	986	782	699	820	942	860	650	786
Under 35 years	400	820	649	740	936	652	547	712	906	780	561	681
35–44 years	705	968	768	862	1,036	721	643	798	1,031	901	721	837
45–64 years	567	946	801	832	1,003	850	796	872	922	888	684	825
65 years or over	255	766	566	613	705	606	465	607	713	845	425	578
5–8 years of schooling	828	1,077	1,056	1,037	1,228	1,363	1,029	1,112	1,178	1,130	868	1,054
Under 35 years	666	945	827	932	1,100	886	779	910	1,071	983	757	909
35–44 years	775	1,111	1,084	1,085	1,273	1,100	1,018	1,104	1,219	1,166	950	1,102
45–64 years	980	1,179	1,208	1,110	1,304	1,417	1,186	1,244	1,236	1,223	947	1,156
65 years or over	714	964	921	874	977	1,009	720	915	969	938	595	857
9–12 years of schooling	1,313	1,465	1,522	1,493	1,543	1,557	1,422	1,470	1,460	1,508	1,266	1,457
Under 35 years	1,043	1,193	1,157	1,209	1,304	1,171	1,117	1,175	1,263	1,245	1,113	1,215
35–44 years	1,286	1,524	1,609	1,555	1,659	1,607	1,496	1,539	1,549	1,595	1,384	1,551
45–64 years	1,541	1,674	1,791	1,749	1,729	1,846	1,636	1,689	1,596	1,720	1,374	1,655
65 years or over	1,340	1,299	1,457	1,506	1,328	1,431	1,113	1,226	1,220	1,350	920	1,269
13 years of schooling or over	1,880	2,193	2,179	2,230	2,248	2,239	1,810	1,909	1,959	2,177	1,860	2,118
Under 35 years	1,438	1,748	1,571	1,679	1,689	1,681	1,410	1,502	1,621	1,658	1,542	1,634
35–44 years	1,928	2,256	2,077	2,316	2,438	2,201	1,818	1,950	2,093	2,301	2,082	2,260
45–64 years	1,931	2,499	2,740	2,687	2,674	2,547	2,083	2,180	2,099	2,549	2,084	2,471
65 years or over	2,983	2,200	2,350	2,473	2,332	2,569	1,922	2,147	2,067	2,320	144	2,170
Not stated (all ages)	700	1,300	1,296	1,572	1,603	1,415	1,379	1,251	1,516	1,527	890	1,354
Average Earnings	**1,089**	**1,257**	**1,237**	**1,225**	**1,430**	**1,346**	**1,232**	**1,356**	**1,367**	**1,332**	**998**	**1,245**

Section 2.—Schools, Colleges and Universities

This Section summarizes the enrolment in all the educational institutions in Canada which include four types: provincially controlled schools, privately controlled schools, universities and colleges and Dominion Indian Schools. The provincially controlled schools are, of course, under the Constitution, the most important group and account for about 90 p.c. of the total enrolment shown in Table 2. A system of public elementary and secondary education, financed mainly by local school authorities but assisted by provincial grants, has developed in each province. There are private schools in all provinces (i.e., schools that are not conducted by publicly elected or publicly appointed boards and are not financed out of public money) but their enrolment is not large in comparison with that of the public schools. At the level of higher education, there is a provincial university in each of six provinces and one or more colleges supported out of provincial funds in the remaining three provinces. (Agricultural schools and colleges are dealt with at pp. 203-213 of the 1943-44 Year Book.)

2.—Enrolment in Educational Institutions, by Provinces, School Year 1944-45

Type of School	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.
Provincially Controlled Schools—					
Ordinary and technical day schools	17,391	116,587	92,275	548,838[1]	650,979
Evening schools	225	3,218	2,101	14,597[1]	33,109
Correspondence schools	141	1,805	2,250	420[1]	2,600
Special schools[2]	Nil	328	Nil	1,119[1]	2,314
Normal schools	[3]	145	147	5,232[1]	953
Privately Controlled Schools—					
Ordinary day schools	754	3,913	2,843	61,828[1]	15,911
Business training schools	104	684	816	6,256[1]	11,141
Universities and Colleges—					
Preparatory courses	536	618	727	18,993	3,754
Courses of university standard	214	2,660	1,652	16,212	23,471
Other courses at university[4]	260	2,751	102	10,741	8,005
Dominion Indian schools	23	398	324	1,323	3,852
Totals	**19,648**	**133,107**	**103,237**	**685,559**	**756,089**
Population, 1945 (estimated)	92,000	621,000	468,000	3,561,000	4,004,000

Type of School	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	No.	No.	No.	No.	No.
Provincially Controlled Schools—					
Ordinary and technical day schools	118,390	174,971	152,532	125,135	1,997,098
Evening schools	2,049	2,518	354	10,067	68,238
Correspondence schools	2,666	10,446	8,960	5,004	34,292
Special schools[2]	516	141	292	101	4,811
Normal schools	239	970	[3]	226	7,912
Privately Controlled Schools—					
Ordinary day schools	4,593	3,544	2,032	5,704	101,122
Business training schools	3,532	1,200	2,726	2,906	29,365
Universities and Colleges—					
Preparatory courses	969	816	518	Nil	26,931
Courses of university standard	3,256	4,933	2,797	4,241	59,436
Other courses at university[4]	1,517	1,288	431	4	25,099
Dominion Indian schools	2,187	2,339	1,925	3,650	16,438[5]
Totals	**139,914**	**203,166**	**172,567**	**157,038**	**2,371,110**[6]
Population, 1945 (estimated)	736,000	845,000	826,000	949,000	12,119,000[7]

[1] 1944 figures; later statistics not available. [2] Schools for the blind, deaf, or mentally defective. These are boarding schools and many of the pupils are from provinces other than the one in which they are at school. Based on estimates. [3] Included with "Universities and Colleges"—preparatory courses. [4] Includes also those in the departmental summer schools for teachers in British Columbia, not held at universities or colleges. [5] Includes 417 in Dominion Indian schools for Yukon and the Northwest Territories. [6] Includes 785 in ordinary day schools for Yukon and the Northwest Territories. [7] Includes 17,000 population for Yukon and the Northwest Territories.

Subsection 1.—Provincially Controlled Schools*

Enrolment and Attendance.—Enrolment in provincially controlled schools is given for the latest school year in Table 2 and average daily attendance is shown in Table 3. The average daily attendance figures are more comparable, as between provinces, and probably more significant for most purposes than those of enrolment.

3.—Average Daily Attendance in Provincially Controlled Schools, by Provinces, School Years Ended 1936-45

NOTE.—Figures for years prior to 1911 will be found at pp. 839-840 of the 1932 Year Book, those from 1911-25 at p. 963 of the 1937 edition and for 1926-35 at p. 1028 of the 1946 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1936.....	13,140	92,279	71,132	539,675	601,758	115,671	164,104	132,725	101,873	1,832,357
1937.....	13,313	92,713	72,691	541,681	605,778	117,244	165,465	133,109	104,044	1,846,038
1938.....	13,498	93,231	73,041	549,398	607,851	116,650	173,205	135,163	106,515	1,868,552
1939.....	13,439	93,291	73,248	560,021	605,501	115,655	163,356	138,392	107,660	1,870,563
1940.....	13,598	93,359	73,046	555,835	607,693	114,800	163,580	139,886	108,826	1,870,623
1941.....	12,855	89,379	69,321	542,938	582,466	110,826	155,937	135,386	103,192	1,802,300
1942.....	12,975	89,915	72,119	532,759	576,711	106,631	152,354	139,886	102,085	1,785,435
1943.....	12,759	86,630	69,814	510,224	553,954	100,169	138,019	127,214	93,473	1,692,256
1944.....	12,621	89,490	73,268	506,062	559,796	99,471	136,752	128,051	102,999	1,708,510
1945.....	12,984	93,831	76,323	512,349[1]	571,625	100,971	135,336	130,095	107,599	1,741,113[1]

[1] Subject to revision.

Grade Distribution.—A record of the grade distribution of pupils in the provincially controlled schools of all provinces is presented in Table 4. The grades of boys and girls are not shown separately.

4.—Grade Distribution of Pupils in Provincially Controlled Schools, by Provinces, School Year 1944-45

Grade	P.E.I.	N.S.	N.B.	Que.[1]	Ont.	Man.	Sask.	Alta.	B.C.
Kindergarten.............	–	22,473	–	1,949	13,795	Nil	Nil	Nil	260
Grade I...............	3,054	13,436	14,889	85,866	9,923	18,953	24,482	18,225	14,863
II...............	1,814	13,250	10,765	82,670	77,127	12,598	18,467	15,784	12,961
III...............	1,939	12,650	10,797	80,895	65,804	12,095	18,252	15,798	12,238
IV...............	1,917	12,051	10,046	81,102	61,105	12,045	17,696	15,766	11,831
V...............	1,789	10,459	9,211	72,881	61,501	11,778	17,719	15,104	11,543
VI...............	1,605	9,580	8,048	64,611	62,888	11,215	16,511	14,510	11,336
VII...............	1,527	7,695	7,300	47,482	60,051	10,917	16,061	14,476	11,679
VIII...............	1,342	6,222	5,813	27,696	57,835	9,239	14,606	12,835	11,219
IX...............	1,109	4,657	3,234	18,687	54,944	7,864	11,967	11,376	9,658
X...............	887	3,159	1,950	9,281	44,297	5,924	8,528	7,624	7,648
XI...............	70	955	1,435	5,365	30,525	4,400	6,363	5,837	5,373
XII...............	10	Nil	63	1,599	19,944	1,362	4,319	5,197	3,838
XIII...............	Nil	"	Nil	Nil	14,813	Nil	Nil	Nil	688
Unclassified.............	176	"	"	14,233	8,866	"	"	"	Nil
Totals.............	**17,239**	**116,587**	**83,551**	**594,317**	**643,418**	**118,390**	**174,971**	**152,532**	**125,135**

[1] Figures are for 1943-44; later figures not available.

Teaching Staffs.—The teaching staffs of day schools under provincial control in Canada consisted, in 1945, of 74,957 teachers (15,155 males and 59,802 females). Table 5 gives statistics of rates of salary by provinces, except for Quebec for which comparable data are not available. A separate report, "Teachers' Salaries and Qualifications in Eight Provinces, 1945", deals in detail with the classification of teachers, their teaching experience and rates of salary paid.

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*Day and technical schools only.

5.—Teachers in Provincially Controlled Schools, Classified According to Salary, by Provinces, School Year 1944-45

Note.—Comparable figures for Quebec are not available.

Salary	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	No.	No.	No.	No.	No.	No.	No.	No.
Less than $325	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil
$ 325-$ 424	13	1	"	69	"	"	"	"
425- 524	113	49	151	113	"	"	"	"
525- 624	159	415	354	421	"	"	"	"
625- 724	132	291	238	331	116	40	"	"
725- 824	56	310	482	319	233	46	"	"
825- 924	39	548	439	275	356	471	61	43
925-1,024	18	421	266	1,904	798	2,737	767	135
1,025-1,124	14	237	179	2,722	600	1,190	778	365
1,125-1,224	27	198	88	3,292	300	847	679	588
1,225-1,324	10	185	63	2,132	133	238	552	364
1,325-1,424	2	161	57	1,023	168	221	457	283
1,425-1,524	2	138	42	811	157	218	323	257
1,525-1,624	Nil	102	52	696	77	163	222	264
1,625-1,724	1	93	30	745	53	106	175	227
1,725-1,824	4	85	131	838	80	119	142	191
1,825-1,924	2	66	26	644	174	107	145	400
1,925-2,024	Nil	77	22	705	95	61	191	149
2,025-2,124	2	54	6	424	39	38	98	125
2,125-2,224	Nil	29	13	1,014	146	32	74	76
2,225-2,324	"	25	15	323	29	21	45	63
2,325-2,424	2	18	22	321	23	21	38	87
2,425-2,524	Nil	11	7	235	22	26	28	63
2,525-2,624	"	16	10	261	32	13	37	54
2,625-2,724	"	14	5	223	14	15	22	45
2,725-2,824	"	5	9	160	70	9	18	64
2,825-2,924	"	19	5	302	6	20	13	39
2,925-3,024	"	9	4	280	14	10	25	62
3,025-3,524	"	31	5	913	64	91	98	196
3,525-4,024	"	3	Nil	290	18	19	11	46
4,025 or over	"	5	1	51	5	2	1	10
Unspecified	69	1	27	Nil	29	35	99	Nil
Totals	**665**	**3,617**	**2,749**	**21,837**	**3,851**	**6,916**	**5,699**	**4,196**

Financial Statistics.—Table 6 presents a comparable statement of the finances of the Boards operating provincial schools so far as this can be done with existing records.

6.—Financial Support of Provincially Controlled Schools, by Provinces, for Specified Provincial Fiscal Years Ended 1926-45

Note.—The receipts shown in the following table do not include any amounts raised by loans or the sale of bonds or debentures, as all revenue of this nature must be repaid ultimately with money raised by local taxation. With the exception of the Maritime Provinces, for which the information is not available, the total debenture indebtedness of the schools of each province is given annually, thus showing the net increase or decrease per year. Figures for 1914-25 will be found at pp. 985-987 of the 1936 Year Book and those for intervening years from 1926 in the corresponding table of subsequent editions.

Province and Year	Government Grants	Taxation Within School Administrative Units	School Board Revenue from Counties	Total Current Revenue Recorded[1]	Debenture Indebtedness	Administrative Units Operating Schools
	$	$	$	$	$	No.
Prince Edward Island—						
1926	242,336[2]	171,650	Nil	413,986	[3]	469
1931	258,905[2]	189,444	"	448,349		469
1936	265,723[2]	199,172	"	464,895		473
1941	266,292[2]	182,636	"	448,928		476
1944	363,643[2]	248,845	"	612,488		479
1945	318,460[2]	250,741	"	569,201		463

For footnotes, see end of table, p. 286.

6.—Financial Support of Provincially Controlled Schools, by Provinces, for Specified Provincial Fiscal Years Ended 1926-45—concluded

Province and Year	Government Grants	Taxation Within School Administrative Units	School Board Revenue from Counties	Total Current Revenue Recorded[1]	Debenture Indebtedness	Administrative Units Operating Schools
	$	$	$	$	$	No.
Nova Scotia—						
1926	365,219[2]	2,393,155	497,229	3,255,603	[3]	1,704
1931	509,462[2]	2,657,780	493,533	3,660,775		1,714
1936	650,606[2]	2,556,905	482,398	3,689,909		1,719
1941	766.884	2,978,704	480,763	4,226,351		1,765
1944	1,413,481	3,326,318	539,082	5,278,881		1,757
1945	2,039,155	3,469,787	539,237	6,048,179		1,753
New Brunswick—						
1926	511,350[2]	2,263,082	213,066	2,987,498		1,459
1931	459,029[2]	2,467,510	210,500	3,137,039		1,483
1936	462,182[2]	1,964,287	223,493	2,649,962	4,961,800	1,518
1941	553,635[2]	2,378,585	223,582	3,155,802	4,501,906	1,554
1944	611,557[2]	2,602,386	254,418	3,468,361	[3]	1,514
1945	880,469	2,867,450	259,563	4,007,482	[3]	1,488
Quebec—						
1926	993,509	15,647,512	Nil	17,271,783	50,413,950	1,800
1931	1,429,033	18,697,183	"	20,742,951	65,886,105	1,827
1936	1,316,019	18,575,530	"	20,548,403	79,556,117	1,860
1941	2,843,133	23,132,808	"	26,867,477	84,604,500	1,947
1943[4]	4,791,439	24,584,733	"	30,337,234	80,173,454	1,955
Ontario—						
1926	4,775,853	30,903,925[5]	1,774,592	37,605,519	71,061,955	6,600 (approx.)
1931	6,276,666	39,544,376[5]	3,100,225	49,351,714	88,781,934	
1936	4,837,275	35,930,987[5]	2,173,659	42,941,921	91,883,360	
1941	7,647,986	40,140,027[5]	2,362,906	50,150,919	68,688,667	
1944	8,980,273	43,791,152[5]	2,481,846	55,268.313	49,955,789	
1945	26,606,874	34,345,414[5]	2,321,126	63,273,414	41,997,096	
Manitoba—						
1926	1,091,151	7,302,044[6]	Nil	8,393,195	14,790,474	1,862
1931	1,310,587	7,675,879[6]	"	8,986,466	15,006,997	1,938
1936	988,434	5,635,473[6]	"	6,623,907	14,592,013	1,902
1941	1,247,143	6,699,506[6]	"	7,946,649	12,996,212	1,875
1944	1,542,240	7,751,647[6]	"	9,293,887	10,147,364	1,821
1945	1,673,319	7,946,663[6]	"	9,619,982	7,887,588	1,816
Saskatchewan—						
1926	2,265,481	10,696,154	Nil	13,111,829	11,933,064	4,525
1931	2,704,242	8,114,719	"	11,015,486	15,945,934	4,796
1936	1,638,417	6,307,000	"	8,106,904	13,999,736	4,938
1941	2,372,112	7,579,360	"	10,163,212	12,042,373	4,808
1944	2,551,503	12,536,473	"	15,316,030	8,814,180	4,571
1945	2,896,595	10,780,060	"	13,871,243	7,228,414	-
Alberta—						
1926	1,137,638	8,241,715[6]	Nil	9,491,130	10,704,634	3,041
1931	1,511,776	8,931,880[6]	"	10.599,204	12,026,157	3,346
1936	1,390,238	7,540,419[6]	"	9,065,132	9,359,594	3,492
1941	1,916,013	8,050,410[6]	"	10,126,736	6,963,188	3,639
1944	2,619,851	10,003,668[6]	"	12,803,060	5,738,121	2,852
1945	3,042,302	10,856,052[6]	"	14,106,257	6,189,184	2,595
British Columbia—						
1926	2,380,668	5,095,420	Nil	7,476,088	12,101,417	746
1931	2,856,376	6,226,661	"	9,083,037	15,936,753	811
1936	2,270,466	5,802,969	"	8,073,435	14,631,839	773
1941	3,001,069	7,018,516	"	10,019,585	13,448,982	728
1944	3,173,325	7,986,131	"	11,159,456	12,403,032	654
1945	3,783,818	8,660,004	"	12,544,292	14,298,366	650

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[1] Includes tuition fees where these are recorded. [2] Includes contributions to teachers' salaries in the Maritime Provinces and, in New Brunswick, grants made to schools by the Vocational Education Board. [3] Not available. [4] Latest figures available. [5] Includes the township grant towards the salaries of rural public school teachers. [6] In the rural municipalities of Manitoba about three-fifths of the school support is equalized by a uniform rate levied over the whole municipality and in the greater part of rural Alberta there is equalization over the areas of more than 40 school divisions.

Subsection 2.—Private Schools

Private Elementary and Secondary Schools.—Enrolment in private elementary and secondary schools in the eight provinces, other than Quebec, has increased during the past ten years at about the same rate as the total population. In 1938 there were 33,624 pupils enrolled, 8,679 of whom were in residence, while in 1945, 39,294 were enrolled and 11,494 were in residence. Girls were slightly in the majority in 1938 but were about one-third above the enrolment of boys in 1945. In 1938 there were 2,018 teachers, 570 of whom were males and in 1945 there were 2,230 teachers of whom 577 were males and 375 were classed as part-time teachers.

The age of the school population in private schools does not follow the usual pyramid form found in the public schools. It increases regularly from age 6 to age 15 where it is two and a half times as great. Almost 10 p.c. drop out at 16, 25 p.c. of the remainder at 17, 40 p.c. the following year and for ages 19 or over the number is about equal to attendance at age 6. In the publicly controlled schools attendance is at its peak from 9 to 13, then falls rapidly. At age 15 it is considerably below age 7 and total enrolment from 16 up is less than at 7.

The ratio of male teachers in private schools in 1945 was about one-quarter whereas in the publicly controlled schools it was about one-fifth.

7.—Enrolment in Private Elementary and Secondary Schools, by Provinces, Specified School Years Ended 1921-45

Note.—Figures for intervening years will be found in corresponding tables in the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921	682	3,047	2,607	54,671	9,961	3,149	1,608	2,274	3,159	81,158
1926	580	2,956	3,528	54,767	10,126	4,534	2,358	2,281	4,624	85,754
1931	570	2,746	3,625	57,320	12,214	5,864	2,853	2,944	5,276	93.412
1940	576	2,719	2,707	53,561	13,515	4,632	2,037	3,739	4,911	88,397
1941	638	2,986	2,935	55,847	13,458	4,509	1,985	3,813	5,003	91,174
1944	803	3,452	3,631	61,828	14,967	4,659	2,545	3,767	5,757	101,409
1945	754	3,913	2,843	[1]	15,911	4,593	3,544	2,032	5,704	[1]

[1] Figures for Quebec were not available at time of going to press.

Business Colleges.—Business colleges in 1938 (exclusive of Quebec) enrolled 18,576 pupils of whom 9,648 were full-time day students, 2,141 part-time day students, and 6,787 evening students. About one-third of the pupils were males. In 1945, enrolments numbered 23,226 including 10,386 full-time, 1,413 part-time, and 11,427 evening pupils. This increase is no more than should be expected considering the increase in population. The fact that in 1945 only one-quarter to one-third completed courses and most of them had many employment offers is indicative of conditions in business and industry at that time. In 1938, there were 441 teachers and in 1945, 526 teachers. The number of male teachers increased from 133 to 156 during the same period.

8.—Enrolment in Private Business and Commercial Schools (Business Colleges), by Provinces, Specified School Years Ended 1921-45

NOTE.—Figures for intervening years will be found in the corresponding table of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921	85	1,280	740	4,319	14,537	3,538	1,333	2,216	1,986	30,034
1926	114	766	722	2,743	10,314	3,502	1,436	2,739	2,230	24,566
1931	140	775	671	2,807	9,732	3,087	1,400	1,629	2,180	22,421
1940	179	740	308	4.032	7,749	1,858	973	1,562	1,955	19,356
1941	168	1,019	329	3,707	9,119	1,782	1.431	2,145	2,010	21,710
1944	197	881	348	6,256	11,724	2,988	1,869	2,780	3,415	30,458
1945	104	684	816	[1]	11,141	3,532	1,200	2,726	2,906	[1]

[1] Figures for Quebec were not available at time of going to press.

Subsection 3.—Higher Education

The outstanding achievement of Canadian universities and colleges in 1946, was the development and implementation of the university training program provided for ex-service men and women under the terms of the Veteran's Rehabilitation Act.

A high proportion of veterans are taking advantage of this opportunity to fit themselves for positions of leadership, with the result that Canada has embarked upon a large-scale experiment in adult education. The number of veterans now enrolled in Canadian universities is equal to the total full-time enrolment of university students in Canada immediately preceding the Second World War.

University Training under the Veterans' Rehabilitation Act.*—The Veterans' Rehabilitation Act provides for the payment of tuition and other fees, as well as an allowance of $60 per month with extra allowances for dependents, for each veteran commencing a regular university course within 15 months after discharge. The allowances are paid only while the student is actually at college and are continued, if needed, for as many months as his active service, provided that he passes all examinations en route. If he fails in a year's work, no further assistance is available for university studies. On the other hand, if he is of scholarship calibre, allowances may be continued on a year-to-year basis beyond his period of entitlement and an outstanding or exceptionally able student may be assisted in post-graduate study when such is in the public interest.

On the recommendation of the Advisory Committee on University Training for Veterans, established by P.C. 3206, May 3, 1945, legislation was introduced to financially assist Canadian universities in their efforts to provide adequate facilities for qualified veterans. In addition to the regular tuition and other fees, the Department of Veterans Affairs was authorized to pay an additional grant to a university, not to exceed $150 per veteran, for the period July 1, 1945, to June 30, 1946, for the purpose of assisting in defraying the instructional, counselling and administrative costs incurred by the university. This action resulted in an enrolment in Canadian universities of 34,000 veterans as at Feb. 1, 1947.

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* Prepared in the Department of Veterans Affairs in co-operation with The Education Statistics Branch, Dominion Bureau of Statistics.

At least 40 p.c. of the veterans either lacked certain university entrance requirements or needed refresher courses before entering university. Through the facilities of Canadian Vocational Training, the Provincial Departments of Education organized tutorial classes and facilities for from 10,000 to 15,000 veterans. (See also Section 5 on Canadian Vocational Training, Chapter XX.)

The provision of classroom and living accommodation presented a major problem and could be solved only on an emergency basis. At least 25 p.c. of the veterans were married and about 19 p.c. of the unmarried students were living at home. To meet the emergency, a Committee of University Requirements was set up by P.C. 7129, Dec. 4, 1945, and, through the co-operation of the Department of National Defence, the Department of Public Works and War Assets Corporation, temporary facilities were made available to the universities. A Committee on Education Overseas was established under P.C. 4161, Aug. 7, 1945, to make provision for certain Service personnel discharged overseas to resume or commence special studies, usually at the graduate level, in overseas institutions prior to return to Canada.

To shorten the delay between the date of discharge and that of admission to university, the larger institutions adopted a system of staggered admission dates during the year. In addition to the annual opening date and the summer-school terms, special courses were begun in mid-term, usually January and May, for first- and second-year courses in Arts and Science where the greatest bottleneck was experienced. Three continuous sessions during the year, made it possible for some students to shorten the time required to obtain a degree by as much as six months or a year. As the peak of enrolment has been passed, this system, except in a few cases, is being discontinued. It is recognized that the strain on teaching staff and students is too great.

Up to Jan. 31, 1947, some 48,985 veterans had received assistance from the Government to enable them to receive university or pre-university training. Approvals for this training had been granted by provinces according to the following statement; Head Office approvals were for training outside Canada. Some minor variations will occur where provincial and Department of Veterans Affairs district boundaries do not coincide:—

	No.		No.
Nova Scotia	2,072	Saskatchewan	4,079
Prince Edward Island	190	Alberta	3,755
New Brunswick	1,515	British Columbia	6,716
Quebec	6,301	Head Office	1,096
Ontario	18,865		
Manitoba	4,396	Total	48,985

A survey was prepared as at Feb. 15, 1947, to determine the division of university students according to course of studies and year of study; the result of the survey is given in Table 9.

9.—Ex-Service Personnel Receiving Government Assistance in University Training, by Courses, as at Feb. 15, 1947

Course	1st Year	2nd Year	3rd Year	4th Year	5th Year	Post-Graduate	Total
	No.	No.	No.	No.	No.	No.	No.
Arts (including pre-professional)	5,422	4,663	1,976	691	61	444	13,257
Engineering	4,027	2,963	751	290	1	61	8,093
Commerce and finance	1,149	1,406	588	185	1	9	3,338
Agriculture	553	650	173	69	3	29	1,477
Medicine	486	185	46	9	2	584	1,312
Law	629	416	111	13	Nil	17	1,186
Education	401	323	90	25	"	36	875
Forestry	385	263	40	12	"	3	703
Pharmacy	271	269	37	2	"	4	583
Art	178	135	34	18	"	3	368
Dentistry	221	61	5	7	"	13	307
Nursing	188	Nil	Nil	Nil	14	77	279
Veterinary	124	93	12	7	Nil	Nil	236
Health and physical education	111	103	11	2	"	"	227
Architecture	154	52	6	2	2	1	217
Optometry	108	74	4	Nil	Nil	Nil	186
Social work	106	40	2	"	"	31	179
Theology	69	63	27	5	"	14	178
Journalism	74	66	19	1	"	Nil	160
Music and dramatics	49	64	24	3	"	4	144
Physio-therapy	36	10	Nil	Nil	"	Nil	46
Occupational therapy	39	16	"	"	"	"	55
Home economics	42	27	5	8	"	1	83
Industrial relations	43	7	Nil	Nil	"	Nil	50
Library	26	2	"	"	"	15	43
Others	178	68	"	"	"	Nil	246
Totals in Canada	**15,069**	**12,019**	**3,961**	**1,349**	**84**	**1,346**	**33,828**
In United States	210	109	65	39	1	448	872
In United Kingdom and Europe	-	-	-	-	-	-	218
Total training in universities	-	-	-	-	-	-	34,918
In pre-matriculation classes as at Jan. 31, 1947	-	-	-	-	-	-	5,225
Grand Total	-	-	-	-	-	-	**40,143**

Teaching Personnel.—The latest available statistics on university teaching staffs—for the academic year 1944-45—do not indicate the full increase in staff incurred by the influx of ex-service students which began largely in January, 1946. In addition to a portion of the new staff required by increased registration, the statistics for 1944-45 include the initial staff required for new courses established by the larger universities, and some adjustments between part-time and full-time teachers occasioned by the return of permanent personnel. Comparison of the personnel reported for 1943-44 compared with 1944-45 is as follows:—

Year	*Faculties of Arts and Sciences*		*Professional and Other Schools*	
	Full-time	*Part-time*	*Full-time*	*Part-time*
1944–45	2,251	463	2,123	1,946
1943–44	2,026	489	1,983	2,031

As the registration increased during 1945-46, the problem of staff became acute. One potential source of teaching personnel was the student veteran group enrolled for post-graduate training. Through co-operation with the Department of Veterans Affairs, a system of part-time teaching was developed for such students to the mutual advantage of university and veteran.

Financial Status.—Including the grants made by the Dominion Government for the training of student veterans, the resources of the universities were heavily taxed during 1945-46 to meet the necessary expansion of permanent buildings and teaching facilities. Considerable capital expenditure was necessary to overcome the effects of delayed expansion and building projects deferred during the War. As in the case of teaching personnel, the latest available statistics do not include all such expenditures.

Current expenditures increased more than $850,000 in 1944-45 over the previous year for the larger institutions. Colleges and universities responsible for 80 p.c. of the enrolment reported current expenditures amounting to $19,000,000. About 45 p.c. of this expenditure was covered by Government grants including Dominion and municipal contributions. Student fees represented 30 p.c. of the current income of $19,153,149 reported by the same group.

The value of land, buildings and equipment advanced about $448,000 over 1943-44 to a total of $97,454,000. Endowment and trust funds increased $3,427,000 to a high of $84,566,000. About 85 p.c. of this amount was centralized in the institutions of Ontario and Quebec.

10.—Statistics of Income and Capital Resources of Universities and Colleges, Specified Years Ended 1921-45

NOTE.—The larger universities and many of the colleges in Canada are included and represent an enrolment of approximately 80 p.c. of the full-time students of university grade throughout the period. The institutions omitted are mainly those conducted by religious orders, where teachers receive little or no salary, and the financial returns consequently do not represent a comparable record.

Year	Current Income					Deficit[2]	Surplus[2]	Value of Capital Resources		
	From Endowment	Government Grants	Student Fees[1]	Miscellaneous	Total			Land, Buildings and Equipment	Endowment	Trust Funds
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1921...	1,497	4,522	1,826	1,244	9,089	80	194	48,124	28,328	-
1926...	2,148	5,471	2,380	1,236	11,235	192	132	65,708	42,157	-
1931...	2,258	6,925	3,323	1,455	13,961	600	126	82,403	48,459	-
1941...	2,046	6,804	5,143	2,054	16,047	224	116	95,680	55,082	17,422[3]
1944...	2,323	7,712	5,488	2,730	18,253	48	163	97,006	58,478	22,661
1945...	2,469	8,305	5,701	2,677	19,153	114	192	97,454	60,403	24,163

[1] Board and lodging not included. [2] Combined deficits or surpluses of schools reporting.
[3] First year available.

University and College Graduates.—The following table shows the number of graduates from Canadian universities and colleges in recent years.

11.—Graduates from Canadian Universities and Colleges, for Specified School Years Ended 1931-45

NOTE.—For figures from 1920-30, see pp. 993-997 of the 1938 Year Book and for the intervening years from 1932-43 see the corresponding table of the 1942 and 1946 editions.

GRADUATES IN ARTS, PURE SCIENCE AND COMMERCE

Year	Bachelors of Arts[1]		Bachelors of Science (in Arts)		Bachelors of Commerce[2]		Totals	
	Total	Women	Total	Women	Total	Women	Both Sexes	Women
1931	2,474	981	252	45	169	17	2,895	1,043
1936	3,175	1,168	320	45	202	25	3,697	1,238
1940	3,230	1,142	345	45	262	27	3,837	1,214
1941	3,327	1,082	342	51	263	32	3,932	1,165
1944	3,046	1,156	366	79	207	39	3,619	1,274
1945	2,949	1,225	422	89	301	43	3,672	1,357

GRADUATES IN APPLIED SCIENCE

Year	Bachelors of Applied Science or Engineering		Bachelors of Architecture[3]		Bachelors of Forestry		Totals	
	Total	Women	Total	Women	Total	Women	Both Sexes	Women
1931	418	Nil	24	Nil	41	Nil	483	Nil
1936	564	2	53	"	21	"	638	2
1940	715	1	21	"	49	"	785	1
1941	753	Nil	24	"	42	"	819	Nil
1944	754	1	17	3	28	"	799	4
1945	757	Nil	20	4	21	"	798	4

GRADUATES IN AGRICULTURE, VETERINARY SCIENCE AND HOUSEHOLD SCIENCE

Year	Bachelors of Agricultural Science		Graduates in Veterinary Science		Bachelors of Household Science	Totals	
	Total	Women	Total	Women	Women	Both Sexes	Women
1931	160	2	28	Nil	112	300	114
1936	238	7	53	"	138	429	145
1940	240	7	72	"	187	499	194
1941	238	8	68	1	214	520	223
1944	184	6	29	Nil	150	363	156
1945	168	10	49	4	160	377	174

TEACHERS' DIPLOMAS AND GRADUATES IN EDUCATION AND SOCIAL SERVICE

Year	Teachers' Diplomas	Degrees in Education or Pedagogy		Librarians' Degrees or Diplomas		Physical Training Degrees and Diplomas		Social Service Degrees and Diplomas		Totals	
	Total	Total	Women	Total	Women	Total	Women	Total	Women	Both Sexes	Women[4]
1931	581	60	19	39	37	45	45	18	18	743	119
1936	584	100	25	66	63	21	20	45	39	816	147
1940	638	144	24	75	72	22	22	76	66	955	184
1941	573	143	31	53	48	54	54	69	60	892	193
1944	458	179	57	24	24	33	24	73	54	767	159
1945	[5]	138	36	45	41	33	28	89	82	[5]	187

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[1] Includes Bachelors of Letters and of Social Science. [2] Includes Bachelors of Accountancy and of Secretarial Science. [3] Includes diplomas in architecture from the Schools of Fine Arts of Montreal and Quebec. [4] Excludes teachers' diplomas. [5] Not available.

11.—Graduates from Canadian Universities and Colleges, for Specified School Years Ended 1931-45—continued

GRADUATES IN MEDICINE AND RELATED STUDIES

Year	Medical Doctors		Dentists		Pharmacists		Degrees and Diplomas in Nursing	Physio-therapy and Occupational Therapy		Totals	
	Total	Women	Total	Women	Total	Women	Women	Total	Women	Both Sexes	Women
1931...	535	26	90	Nil	208	10	122[1]	20	20	975[1]	178[1]
1936...	497	21	106	"	190.	10	125[1]	27	27	945[1]	183[1]
1940...	615	20	115	"	190	15	135[1]	51	51	1,106[1]	221[1]
1941...	563	25	98	"	160	15	137[1]	64	64	1,022[1]	241[1]
1944...	722	35	104	3	95	17	251[1]	84	84	1,256[1]	390[1]
1945...	575	34	172	3	78	16	305	83	83	1,213	441

GRADUATES IN LAW AND THEOLOGY

Year	From Law Schools		From Roman Catholic Theological Colleges	From Protestant Theological Colleges	
	Total	Women	Total	Total	Women
1931	223	5	245	189	18
1936	209	7	310	174	16
1940	227	6	320	127	11
1941	246	4	340	128	11
1944	132	10	316	140	16
1945	121	8	305	101	19

POST-GRADUATE AND HONORARY DEGREES

Year	Honorary Doctorates		Doctorates in Courses		Masters of Arts[2]		Masters of Science[3]	
	Total	Women	Total	Women	Total	Women	Total	Women
1931	95	Nil	46	7	274	94	93	4
1936	100	2	68	5	252	73	133	3
1940	85	4	82	3	367	70	128	5
1941	85	6	75	5	349	58	146	8
1944	89	Nil	88	14	143	27	98	8
1945	114	4	89	11	183	59	82	8

Year	Bachelors of Divinity	Licentiates (except in Theology)		Other Post-Graduate Degrees and Diplomas[4]		Totals	
	Total	Total	Women	Total	Women	Total	Women
1931	37	91	2	100	2	736	109
1936	43	100	7	90	Nil	786	90
1940	40	115	6	106	6	923	94
1941	41	128	1	102	9	926	87
1944	27	215	32	40	2	700	83
1945	36	213	22	150	30	867	134

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[1] Revised since the publication of the 1946 Year Book. [2] Includes M. Com. and M. Ed. or M. Paed. [3] Includes M.A. Sc., M.S.A., M.Sc.F., M. Arch., M.V. Sc., M. Sc. Dent., M. Surgery (where conferred separately). [4] Except diplomas for teachers and theologians.

11.—Graduates from Canadian Universities and Colleges, for Specified School Years Ended 1931-45—concluded

Year	ESTIMATES OF STUDENTS RECEIVING FIRST DEGREES								
	Grand Totals[1]			Deductions for Duplication			Net Totals		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
1931....	5,290	3,952	1,338	449	437	12	4,841	3,515	1,326
1936....	6,441	4,834	1,607	455	444	11	5,986	4,390	1,596
1940....	6,933	5,392	1,541	527	514	13	6,406	4,878	1,528
1941....	7,037	5,489	1,548	552	542	10	6,485	4,947	1,538
1944....	6,617	4,753	1,864	499	478	21	6,118	4,275	1,843
1945....	6,562	4,738	1,824	509	488	21	6,053	4,250	1,803

[1] Not including diplomas in education and social service, a few other diplomas, post-graduate or honorary degrees.

Subsection 4.—Dominion Indian Schools

The administration of Indian affairs by the Indian Affairs Branch of the Department of Mines and Resources is dealt with in Chapter XXXI.

Educational work carried on by the Dominion Government for the benefit of Indians is now very extensive. In the year ended Mar. 31, 1946, a total of 346 Indian schools were in operation, including 76 residential schools for Indians with an enrolment of 9,149 and 262 day schools for Indians with an enrolment of 9,532 Indian pupils, also 8 combined public and Indian schools with 124 Indian pupils enrolled. The total enrolment of Indian pupils at school increased from 12,799 in 1915-16 to 18,805 in 1945-46; average attendance fluctuated during the period between 62·7 p.c. and 82·4 p.c. of enrolment. Continuation and high-school work is now being taught in several of the day and residential schools. The amount spent on Indian education in the school year 1945-46 was $2,298,320.

12.—Enrolment and Average Attendance at Indian Schools, School Years Ended 1937-46

NOTE.—Figures for the years 1916-29 will be found at p. 1063 of the 1940 Year Book, and for 1930-36 at p. 929 of the 1942 edition.

Year	Residential Schools		Day Schools[1]		All Schools		
	Enrolment	Average Attendance	Enrolment	Average Attendance	Enrolment	Attendance	
						Number	P.C. of Enrolment
1937..........	9,040	8,176	9,257	5,790	18,297	13,966	76·3
1938..........	9,233	8,121	9,510	5,978	18,743	14,099	75·2
1939..........	9,179	8,276	9,573	6,232	18,752	14,508	77·4
1940..........	9,027	8,643	9,369	6,417	18,396	15,060	81·9
1941..........	8,774	8,243	8,651	6,110	17,425	14,353	82·4
1942..........	8,840	8,283	8,441	5,837	17,281	14,120	81·1
1943..........	8,830	8,046	8,046	5,395	16,876	13,441	79·6
1944..........	8,729	7,902	7,858	5,355	16,587	13,257	79·9
1945..........	8,865	8,006	7,573	5,159	16,438	13,165	80·9
1946..........	9,149	8,264	9,656	6,779	18,805	15,043	80·0

[1] Includes enrolment and attendance of Indians in combined public and Indian schools.

The enrolment by provinces for the year 1945-46 was as follows: Prince Edward Island, 28; Nova Scotia, 533; New Brunswick, 357; Quebec, 1,548; Ontario, 4,426; Manitoba, 2,650; Saskatchewan, 2,652; Alberta, 1,987; British Columbia, 4,160; Yukon, 192; and Northwest Territories, 272.

Subsection 5.—Schools in the Northwest Territories

Educational facilities in the Northwest Territories are largely in the hands of two religious denominations, the Roman Catholic Church and the Church of England, and consist of residential or day schools located at the main settlements. Their construction was made possible by grants from the Dominion Government, and their maintenance is assisted by annual Government grants. In addition, the Government furnishes certain equipment and school supplies.

The only public school maintained by local taxation is located at the fast-growing mining town of Yellowknife. There is also a non-denominational day school located at Fort Smith which is maintained by fees. In both these cases, the Government assists with an annual grant.

Educational matters are administered by the Northwest Territorial Council, (see p. 85), which functions in both a legislative and advisory capacity to the Minister of Mines and Resources. In the summer of 1946 the first Inspector of Schools was appointed, who subsequently visited all schools in the Mackenzie District. On the basis of his findings and recommendations, a number of revisions in the organization and administration of education in the Northwest Territories are now under way.

Of interest is a recent decision by the Northwest Territorial Council to make a grant of $150,000 toward the construction of a new modern public school at Yellowknife. This building will be up-to-date in every detail and will make provision for instruction in several lines of vocational training, including commercial work, domestic science, machine-shop practice and carpentry. Other plans call for the organization of day schools at a number of points where educational facilities are not as yet available.

The school children in the Territories include Indians, Eskimos, half-breeds and Whites. The majority of them attend residential schools because of distance and the essentially nomadic nature of much of the population. Despite great handicaps and privations, the staffs of the various schools have been carrying on, in commendable fashion, the work of adjusting the native children to the inroads of modern civilization.

PART II.—OTHER EDUCATIONAL ACTIVITIES

Section 1.—The Relationship of Art to Education

Fine Art.—Fine art appears as an elective subject in the curricula of the Faculties of Arts in a number of the English-language universities, where it may be taken as one subject among five for a year or two. In some, e.g., Acadia University, N.S., there are half a dozen or more elective courses. In Mount Allison University, N.B., and in the University of Toronto, Ont., there are a sufficient number of courses to allow the taking of a Bachelor degree with specialization in fine art.

There are also Schools of Art, both English and French, not requiring any fixed academic standing for admission, which concern themselves more exclusively with the technical development of the artist. The most widely known of these are:—

Nova Scotia College of Art, Halifax, N.S.
Ecole des Beaux-Arts, Quebec, Que.
Ecole des Beaux-Arts, Montreal, Que.
School of Art and Design, Art Association of Montreal, Montreal, Que.
Ontario College of Art, Toronto, Ont.
Winnipeg School of Art, Winnipeg, Man.
Provincial Institute of Technology and Art, affiliated with the University of Alberta, Calgary, Alta. (Summer session at Banff, Alta.)
Vancouver School of Art, Vancouver, B.C.

Courses in these schools vary in length with the requirements of the individual student, but may extend over as many as four years.

Public art galleries and museums in the principal cities perform valuable educational services among adults and children. Children's Saturday classes, conducted tours for school pupils and adults, radio talks, lectures and often concerts are features of the programs of the various galleries. In many cases these institutions supply their surrounding areas with travelling exhibitions, while the National Gallery of Canada carries on a nation-wide program of this nature (see p. 297).

The principal art galleries and museums* are:—

New Brunswick Museum, Saint John, N.B.
Museum of the Province of Quebec, Quebec, Que.
Art Association of Montreal and Museum of Fine Art, Montreal, Que.
National Gallery of Canada, Ottawa, Ont.
National Museum of Canada, Ottawa, Ont.
London Public Library and Art Museum, London, Ont.
Art Gallery of Toronto, Toronto, Ont.
Royal Ontario Museum, Toronto, Ont.
Willistead Library and Art Gallery, Windsor, Ont.
Winnipeg Art Gallery, Winnipeg, Man.
Saskatoon Art Centre, Saskatoon, Sask.
Edmonton Museum of Arts, Edmonton, Alta.
Vancouver Art Gallery, Vancouver, B.C.

Creative Arts.—A development of special interest in the field of the creative arts was the establishment, in December, 1945, of the Canadian Arts Council. The Council grew out of the united action taken by its constituent associations in the spring of 1944, when they presented an integrated series of briefs to the Special Committee of the House of Commons on Reconstruction and Re-establishment. These briefs looked forward to a post-war society in which the arts would be "more widely distributed and more closely integrated with the life of our people". The Council has accordingly taken a very active interest in the development of the Community Centre idea.

The basic situation claimed by the Council is that "in Canada there are millions who have never seen an original work of art, nor attended a symphony concert or a professionally produced play, while in our largest cities thousands of professional creative artists enjoy a field so limited that they are forced into activities unsuited to their talents". Chief among the proposals for remedying the situation is the establishment of "a government body to promote a national cultural program and provide music, drama, art, and film services for all our people". Other proposals have in view the improvement of industrial design, and housing and town planning.

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* A complete list of art museums, societies and schools is available in the *American Art Annual* (New York, 1945), pp. 285–298.

To list the names of the sixteen bodies constituting the Council is to give some indication of the range of professional organization in the field of the Arts in Canada:—

The Royal Canadian Academy of Arts
The Royal Architectural Institute of Canada
The Sculptors' Society of Canada
The Canadian Society of Painters in Water Colour
The Canadian Society of Painter-Etchers and Engravers
The Canadian Group of Painters
The Canadian Society of Graphic Arts
The Federation of Canadian Artists
The Canadian Authors' Association
La Société des Ecrivains Canadiens
The Music Committee
The Canadian Society of Landscape Architects and Townplanners
The Dominion Drama Festival
The Canadian Handicrafts Guild
The Canadian Guild of Potters
The Arts and Letters Club.

The Role of the National Gallery of Canada.*—The opening words of the 1945 National Gallery Report are an indication of the importance attached by the National Gallery to its educational work. These read: "....The art gallery of to-day is no mere repository of dead civilizations. It functions not for the sake of a small minority but for the whole people. It must be a vital organization, aware of its time, seizing upon every opportunity to participate in public education".

The work of the National Gallery has many facets. Gradually having widened the scope of its activities, the Gallery to-day plays a vital role in the complex system of adult education and at the same time acts as a valuable adjunct to primary, secondary and even to college systems of instruction.

Founded in 1880 by the Marquis of Lorne, the National Gallery at first served as an exhibition gallery. Provided with an Advisory Arts Council in 1907 and incorporated under a Board of Trustees in 1913, the Gallery has been assembling its permanent collection largely during the past 40 years. Though this was only the beginning, a collection of pictures and sculpture representing the styles of past and present of various parts of the world was recognized as invaluable in terms both of the public's enjoyment and of study for the improvement of arts and industrial products. More than that, however, it was a necessary basis for any program of education. The collection of the National Gallery to-day is of international repute. It is, moreover, accessible to the whole nation by means of a published catalogue, photographs and colour reproductions. The Canadian section, naturally the most inclusive, is the best available source for the study of Canadian art.

In 1946, the Massey Collection of English Painting was presented by the Right Hon. Vincent Massey, C.H., and Mrs. Massey as trustees of the Massey Foundation. Comprising 75 pictures, the collection makes the National Gallery a leading centre for the study of modern British art, and is the largest gift in the history of the Gallery.

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* Prepared under the direction of H. O. McCurry, Director, National Gallery of Canada, Ottawa.

Meanwhile the newer function of general education has grown up. The National Gallery has pioneered in the assembling and circulation of exhibitions over a very large territory. To-day travelling exhibitions of the arts of Canada and other countries are shipped throughout Canada under the auspices of the National Gallery. Fifteen such exhibitions, including those of the several chartered art societies, are now being circulated. Art galleries, schools and other responsible organizations in various regions draw annually upon the services of the Gallery as the source of most of their offerings to the public. Recent developments have led to the fitting of new community centres into this scheme, and these in turn send exhibits (their own and those from the National Gallery) to smaller communities in their districts. An instance is at London, Ont., where the regional circuit includes Kitchener, St. Thomas, Ingersoll, Chatham and other centres. Loans of pictures from the National Gallery to small or new museums have had much the same beneficial effect as the travelling exhibitions. In these ways actual works of art are constantly being brought to the attention of the people throughout the entire country and much more will be done after the development of an integrated system of community centres throughout the Dominion. No place need be too small or remote to profit from current exhibitions.

The National Gallery has devised certain methods of education in the arts which apply more specifically to young people and are designed, in part, to supplement regular school work and aid the teacher. The Gallery has co-operated with, advised and provided material for schools and colleges throughout the country. Written lectures illustrated by lantern slides on all fields of art history have long been available for loan to all parts of Canada; reproductions of paintings, with introductory texts for art appreciation, and photographs have also been offered for loan; classes for school children at the Gallery, exhibitions of children's work, conducted tours of the Gallery's collections and educational demonstrations have been features of the program for a number of years. In addition, the National Gallery holds public lectures at Ottawa, Ont., and lecture tours throughout Canada are arranged from time to time.

Some interesting newer techniques of education have also been utilized. A series of school broadcasts entitled *Adventures in Canadian Painting* was inaugurated in 1945 and continued in 1946. These programs on the lives and work of Canadian artists are heard from coast to coast through the co-operation of the Canadian Broadcasting Corporation and aim at telling the story of Canadian art in such a way as to awaken the interest of young people. An essential part of each program is a reproduction of a picture in the National Gallery supplied to the pupil at a nominal price. About 120,000 pictures are distributed each year.

The use of the motion picture is familiarizing school children and the general public with the work of Canadian artists; for instance, the colour and sound film, *Canadian Landscape*, made in conjunction with the National Film Board, features the work of modern Canadian artists against a historical background of landscape painting in Canada since Krieghoff. The silk screen prints by Canadian artists, already famous in many parts of the world as the result of their distribution to the Armed Forces of Canada and the Allies, have now been made available to schools and the public generally. These and other reproductions (see the Gallery's publication, *Reproductions on Sale and Loan Collections*) are now in considerable demand in Canadian schools.

At the university level, the National Gallery co-operates with university departments of art and art history. An important new channel of information is furnished by the magazine *Canadian Art*, in the organization of which the National Gallery has taken a leading part.

In these ways the National Gallery has been fulfilling the terms of its charter which assigns to it not only the care of the collections but also "the encouragement and cultivation of . . . artistic taste and Canadian public interest in the fine arts, the promotion of the interests generally of art in Canada". It has been assisted in this endeavour by the attitude of the people of Canada, who are already recognizing the important part that art can play in the complex civilization of to-day, by providing a means of communication between people, by filling the individual's leisure time to his own enjoyment and mental growth, and by advancing the country's material welfare through the improvement of the industrial arts.

Museums and Art Galleries.—At pp. 1025-1026 of the 1939 Year Book a list of the museums (including art galleries) in Canada employing full-time staff is published, showing floor space and average daily attendance at each. There has been no official detailed report published by the Dominion Bureau of Statistics on this subject since 1938. In 1945, however, a complete list of art museums, societies and schools in Canada was published in the *American Art Annual* (New York).

Section 2.—Scientific and Industrial Research in Canada

Subsection 1.—Research Facilities

The field of scientific research in Canada is too broad to be covered in detail in each edition of the Year Book but since all research work, whether government or private, is co-ordinated in the National Research Council, a description of the development and work of the Council is given in Subsection 2.

Research work is carried on by the Departments of Agriculture, Mines and Resources, Fisheries, the Board of Grain Commissioners and the Dominion Observatories. These bodies have trained permanent scientific staffs for investigation and research in their own fields such as soil problems, crops, breeding and testing of animals, processing and marketing, extractive and physical metallurgy, silvicultural and forest products, hydrography, ocean and mollusk fisheries, etc.

The Board of Grain Commissioners employs a staff of seven chemists and 21 assistants in the main research laboratories for milling, baking, malting, etc., while the Dominion Observatories carry out research in the fields of solar physics, astrophysics, seismology, terrestrial magnetism, gravity and other studies.

Universities often show bold initiative in exploring the field of scientific research but with the limited facilities at their disposal the task of carrying their discoveries to a conclusion is not always easy. Government and industrial laboratories are often able to pick up and carry on where the universities leave off.

A special field of research is also being performed by the Research Foundations. The Ontario Research Foundation, established in 1928, has conducted its activities in four buildings adjoining Queen's Park, Toronto, Ont. The object of the Foundation is to provide an independent non-profit-seeking scientific organization available to the public and to industry for assistance in matters of a technological character.

The Banting Research Foundation is used to support the work of the Banting and Best Chair of Medical Research in the University of Toronto and to aid medical research throughout Canada.

The Rockefeller Foundation has given assistance to various agencies in Canada for the purpose of furthering scientific research in medical science, natural science, social science and public health.

A detailed account of scientific and industrial research in Canada is given at pp. 970-1012 of the 1940 Year Book.

Subsection 2.—National Research Council*

Historical.—Organized research on a national scale in Canada dates from 1916 when, at the suggestion of the Government of Great Britain, the Canadian Government established the "Honorary Advisory Council for Scientific and Industrial Researches" under a Committee of the Privy Council. Fifteen members were thus brought together primarily in order that the ingenuity and skill of Canadian scientists in all branches might be brought to bear on the solution of the many urgent problems confronting the Government of that day in the prosecution of the First World War. A secondary purpose was to promote research on peacetime problems of national interest. A survey, made in 1917, showed that industrial research in Canada was practically non-existent and that the supply of men, with such post-graduate training as to enable them to undertake independent investigations, was entirely inadequate to permit of any general application of scientific research to Canadian industrial problems.

Provision was therefore made for the co-ordination of research work and the organization of co-operative investigations; the post-graduate training of research workers; and the prosecution of research through grants-in-aid to university professors. This was the basis of the Council's work from 1916 to 1924.

The Council early recommended the establishment of national laboratories and a Special Committee of Parliament, appointed to study this recommendation, endorsed the proposal after having heard many witnesses give their opinions. Financial difficulties intervened, but in 1924 public opinion made it possible to have the Research Council Act passed by Parliament. Temporary laboratories were secured and a research on the utilization of magnesian limestones for refractories was carried out so successfully that a wartime industry, established during the First World War, was re-established on a large scale, and has become an important producer of materials that have found world-wide markets. As a result, in 1929-30, the Government provided funds for new laboratories.

Establishment of Laboratories.—The National Research building on Sussex Street, Ottawa, was commenced in February, 1930, and was opened at the time of the Imperial Conference in 1932. Laboratory divisions were established in applied biology, chemistry, physics, and electrical engineering, and there was a division of research information. In April, 1936, the division of physics and electrical engineering was reorganized and mechanical engineering was established as a separate division. Work of this division continued in temporary laboratories but these quarters soon became inadequate.

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* Prepared under the direction of C. J. Mackenzie, President, National Research Council, Ottawa.

Early in 1939 a site of 85 acres, adjacent to the Ottawa Air Station, was secured and 45 acres adjoining this site were transferred to the Council by the Department of National Defence. Plans for the construction of new buildings on this site were made but, as the inevitability of war became more apparent, it was decided to proceed immediately with the construction of only such structures as would have a direct wartime use in dealing with aeronautical engineering problems. Construction of the aerodynamics building was started on Oct. 17, 1939, and later several other buildings were erected. These included the shops and separate laboratories for research on engines, gas and oil, hydraulics, explosives and structures. In all of these units the facilities were extensively employed on important projects during the War.

War Activities.—Closest co-operation with Departments of Government and other research institutions was fostered and maintained in the promotion of war research. Early in the War, following a survey of laboratories made by the Council, facilities in many universities and industrial establishments were freely offered to the Council for the conduct of special investigations. As a result, the Council became responsible in the later years of the War for research in more than a score of establishments outside of Ottawa. A radio station was set up near Ottawa to enable adequate research to be carried on in this field. The Council was officially named as the civilian research establishment of the Navy, Army and Air Force, and research for these three Services was carried out as required throughout the War.

The contribution of Canadian scientists in the development of new devices, methods and products during the War was widely recognized in such fields as radiolocation, aids to the Navy in mine and submarine detection, control of gunfire and other ballistic problems, new and more powerful explosives, emergency methods of food storage and transport under war conditions, development of special types of clothing, and other equipment for Navy, Army and Air Force requirements. Problems relating to the physical well-being of the troops involved studies in nutrition, housing, sanitation, medical examination of recruits and treatment of the injured and sick. Special subjects such as burns and the treatment of shock became important. Blood banks necessitated research on methods of storage and preservation. Conferences on amputations were held to bring work in this field into focus. Special medical committees were created to deal with specific subjects.

On the civilian side, the National Research Council was able to offer constructive aid in the testing of inspection gauges used in all munitions plants. Glass production methods were evolved for the manufacture of needed telescope and other instrument lenses and a new industry was established. Radiology was applied to the inspection of castings, and teams of individual workers from industrial plants were trained in its use. Paints, rubbers, textiles, metals for special purposes, and defence measures against the possible use of gas in warfare were investigated. A new process for the production of metallic magnesium found commercial application in both the United States and Canada. Synthetic rubber research was linked with similar work elsewhere and applied to industrial operations. Cold-weather problems were given special attention to meet the requirements of the Armed Forces working in northern latitudes.

The National Research Council was largely responsible for the organization of Research Enterprises, Limited, a wholly Government-owned Company formed for the purpose of manufacturing in quantity special secret military equipment from prototypes developed in the National Research Laboratories. The policy of separating development and manufacturing functions proved wise, and despite the separation in control and administration, there was always the closest collaboration between the two organizations.

Peacetime Reconversion.—By the end of 1946, the National Research Council had completed the reconversion of its activities from war to peace. In 1939 it proved a major task to convert the then existing peacetime organization into a powerful weapon for war; so, too, in 1946 reconversion posed large and even more arduous problems. War research facilities that had attained great proportions had to be discontinued or modified to meet the growing industrial requirements of peace. Most of the staff recruited to serve the country's war effort in research were absorbed into the peacetime establishment but many of the younger members left to complete their academic studies which had been interrupted by the War. Other matured and skilled scientists who had had years of intensive research training as members of the Council staff, found suitable avenues of advancement in the service of Canadian industries and thus indirectly extended the influence of the Council far beyond its own laboratories. The Council proceeded to recruit the necessary personnel, choosing only those of the highest calibre, to bring its peacetime establishment up to full strength.

Canada's wartime research organization has thus been modified to suit post-war needs, and existing facilities are being greatly expanded to provide the best possible laboratory services for Canadian industry. Three new divisions and several new sections of the National Research Laboratories have been established; radar and other war equipments are being adapted to commercial use; hundreds of investigations are in progress; and the Council is actively engaged in the promotion and co-ordination of scientific research in all parts of the Dominion.

An Atomic Energy Research Division has been established at Chalk River, Ont., to investigate the applications of atomic energy and the use of its products in industry and medicine. A Division of Medical Research has been organized to stimulate and support investigations in this broad field of human interest. A Building Research Division is shortly to be set up to study practical problems relating to construction materials and their use. Work is progressing on the building of a Prairie Regional Laboratory at Saskatoon, Sask., for the promotion of studies on the better utilization of agricultural surpluses, notably wheat, and farm waste products such as straw. An Electrical Engineering and Radio Branch has been created to co-ordinate and direct work in this growing field. The Chemistry Division has been freed from wartime requirements for routine testing and its activities have been regrouped into two new branches: (1) Fundamental Chemistry, and (2) Chemical Engineering. The tailless glider designed and built in the aeronautical laboratories, was test-flown successfully in the autumn of 1946 at Namao airport near Edmonton, Alta. A Flight Research Section has been established at Arnprior, Ont., in co-operation with the Royal Canadian Air Force. A new section of the Mechanical Engineering Division has been formed to deal with problems in gas dynamics, including work on gas turbines and jet propulsion.

Atomic Energy Research.—In June, 1946, the Dominion Parliament passed the Atomic Energy Control Act. This Act provides means for the development of atomic energy and for the control of work in this field as may be required in the interest of public safety and in the fulfilment of international obligations. A Board of five members was set up to act under the general direction of, and to report to the Chairman of the Committee of the Privy Council on Scientific and Industrial Research. The President of the National Research Council is an ex officio member of the Atomic Energy Control Board; other members are appointed by the Governor in Council and hold office during pleasure.

The engineering, construction and operation of the vast plant and townsite at Chalk River, Ont., were carried out by Defence Industries Limited, under contract with the Department of Reconstruction and Supply. As the project developed, both Defence Industries Limited and the Government authorities came to the conclusion that, as the undertaking was really a pilot plant which must be closely integrated with the Research Laboratories, it would be better if one Government organization were to assume the over-all operating responsibilities of both the research laboratories and the industrial establishments. On consideration of this problem, the Atomic Energy Control Board at its first meeting recommended that the National Research Council be asked to undertake the integration of the various projects and their operation on behalf of and in accordance with the policy of the Atomic Energy Control Board. This was agreed to and on Feb. 1, 1947, the Council took over responsibility for the administration and operation of the entire atomic energy development at Chalk River, and will carry on these activities in accordance with broad general policies fixed from time to time by the Atomic Energy Control Board.

Information Services.—In the newly established Division of Information Services, which includes sections dealing with the library, liaison offices, *Canadian Journal of Research*, and technical inquiries, all activities relate to various phases of the collection and distribution of scientific and technical information. Of special interest are numerous reports on technical developments in Germany. Recent studies carried out in that country confirm the view that, on the whole, the United Nations have not lagged behind in scientific and technical progress; in a number of fields, however, Germany had worked out improved methods of production and developed special products of direct interest to Canadian industrialists. Reports on enemy science and technology are being distributed to industrial and scientific organizations in Canada.

Medical Research.—Most of the activities of the Division of Medical Research will be carried on, as heretofore, in the laboratories of the medical schools and hospitals throughout Canada. In addition to considering applications for grants-in-aid of research and making recommendations to the Council concerning these, the Division, through its Advisory Committee, reports to the Council in respect of medical research fellowships, which were established last year. It is hoped that these fellowships, which are open to Canadian medical graduates, will be the means of training young men and women so that their lives may be devoted to research and teaching in the medical schools of Canada.

Building Research.—For several years the National Research Council has been engaged in various research projects that have had for their object the improvement of building materials or the betterment of housing construction. Intensive work was initiated some years ago on the requirements for structures and the National Building Code was subsequently published. This is a document designed for use as a model in the drafting of municipal building by-laws. A model zoning by-law was also prepared. Both of these publications have been used extensively as reference works by Canadian municipalities.

In the laboratories, numerous studies have been directed towards the amelioration of various conditions in housing. Mention may be made of studies on efficiency in lighting, research on sound-deadening in walls and floors, investigations on the relative values of different types of insulating materials, and measurements on vapour barriers used to prevent condensation of moisture in outside walls. Work has been done on ventilation, and reports have been issued on heat losses through windows and moisture on windows. Tests are being made continuously on oil burners to ensure their safe operation. One of the earliest studies made by the Council was on the subject of fuel-saving possibilities in house heating.

Among the newer projects in this long series is the current investigation on problems involved in 'panel' or radiant heating. The purpose of this study is to find satisfactory answers to many questions raised by heating engineers regarding this new plan of heating whereby the source of heat is in or under the floor or in the ceiling instead of being supplied by conventional-type radiators. Two experimental houses have been built on the Montreal Road site for this study.

Another important advance in the matter of low-cost housing has been made in the development of a modular system for the construction of prefabricated houses. By means of prefabricated wall panels and flat-roof panels incorporating structural strength, insulation, vapour barrier, finished surfaces, and a connection system, the construction of houses almost entirely in the factory under mass production methods will be feasible. The various standard wall panels, all with identical over-all dimensions, permit the adoption of practically any floor plan to suit the requirements of the site and the builder. Further work on the details of panel fabrication is in progress.

With the establishment of the proposed Building Research Division, all of this work will be brought sharply into focus and new projects will be initiated as required to provide complete coverage of Canada's most pressing problem, the provision of adequate and efficient housing for its people.

In all of its activities the National Research Council seeks to provide an effective medium for leadership and co-operation in the training of competent research workers and in the application of scientific knowledge in the universities and industries throughout the Dominion.

Section 3.—The Educational Functions of the National Film Board and the Canadian Broadcasting Corporation

The National Film Board.*—This Board serves the Canadian people by means of visual interpretations of their country's life and culture; its social problems; its national resources and industries; and its achievements in art, science, research and medicine. It serves Canada abroad by picturing Canada to the peoples of other lands, and it brings to Canadians many aspects of international affairs that are of public interest.

Since its creation in 1939, through the passing of the National Film Act, the Board has included in its activities the production and distribution of 35mm (theatre size) and 16mm (non-theatre size) films, as well as photographs, filmstrips, small informational and large photographic displays. At the request of Government Departments, the Board also designs posters and publications. Its films (16mm and 35mm, sound and silent, black-and-white and colour, English, French and other languages) cover a wide range of subjects such as agriculture, arts and crafts, economics, education, engineering, geography and travel, history, labour, medicine, manufacturing, natural resources, physics, psychology, public health and nutrition, social problems and planning, transportation and communications. During the year ended Mar. 31, 1946, 310 short subjects in these categories were produced and 65,000 photographs and photo mats were distributed to daily and weekly newspapers and other publications in Canada. In addition, the Board produced 13 filmstrips and a considerable number of displays and other graphic materials.

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* Prepared under the direction of Ross McLean, Film Commissioner, National Film Board, Ottawa.

The Board is made up of two Ministers of the Dominion Government, three senior Civil Servants, and three members of the public chosen for their interest in film and knowledge of its importance as an instrument of public policy. The chief executive officer is the Film Commissioner, whose responsibility it is to direct, advise upon, and co-ordinate Government film services in Canada. Besides its own considerable production program of informative films and graphic materials, the Board is also the production and distribution agency for films for all Departments of the Government. Among the branches of the Government for which the Board produced films and other visual materials in 1946 were the Departments of Agriculture, External Affairs, Finance, Fisheries, Insurance, Labour, Mines and Resources, Munitions and Supply, National Defence, Post Office, Public Printing and Stationery, Reconstruction, Secretary of State, Trade and Commerce, Veterans Affairs, National Health and Welfare and the National Research Council, National War Finance Committee, Canadian Mutual Aid Board, the Canadian Information Service, the National Gallery and the Wartime Prices and Trade Board.

Although it issues 35mm films each month in English and French in the *Canada Carries On*, *World in Action* and *Coup d'Oeil* series, which enter the theatres on an ordinary commercial basis, most of the Board's production is intended for 16mm (non-theatre) libraries and circuits.

In Canada, the backbone of urban 16mm distribution is the film libraries that have been established throughout the nine provinces by the Board and by local bodies such as public libraries, normal schools, provincial departments of education, university extension departments and, more recently, community film councils. The majority of Canadian communities with a population of more than 5,000 now have their own film libraries and more than 70 Film Councils assist in encouraging the use of informative and educational films from this source.

The showing of special programs of films to workers in factories and at trade-union meetings is a feature of urban distribution. The labour-union project is sponsored jointly by the Canadian Congress of Labour, the Trades and Labour Congress of Canada, the Workers' Educational Association and the National Film Board. Special discussion trailers and study material, which have been found very successful in stimulating audience interest, accompany each film distributed to the labour unions. Similar special services are being developed for industry, women's organizations, scientific and engineering groups, health and medical bodies, and in other specialized fields such as education, science, welfare, reconstruction and housing to build approved programs of films and other materials for all interested organizations. To serve their film needs, the Board maintains at Ottawa a Preview Library with 2,000 titles.

Introduced as an experiment in January, 1942, the original 30 mobile units, formed to bring regular monthly film programs to rural audiences, have now increased to a total of 124, reaching an average audience of 300,000 per month. Of this number many circuits are partly or wholly supported by the Provincial Governments or by the agencies co-operating with the Board. The careful planning of these rural film programs, together with discussion booklets for teachers and group leaders, relate them closely to the work and interests of the communities that they serve. Each Rural Circuit reaches about 20 locations each month bringing in the afternoon to school children and in the evening to general audiences, films chosen for the value and interest of the information they contain. The program for schools is chosen in consultation with the Department of Education in each province. Through their co-operation with the wheat pools, extension departments of universities and Provincial Departments of Education, the Board's rural representatives have come to be regarded as valued servants of the community.

Outside of Canada, the Board's films and other productions are widely distributed in the United States, the United Kingdom, Australia, Central and South America and other countries through the Board's offices at New York, Chicago and Washington in the United States, Mexico City, Mexico, Sydney, Australia, and London, England, and through Canadian trade and diplomatic offices in 35 countries. Other distribution channels are through commercial theatres and Government and other non-theatre film circuits.

The Board's films and photographs have helped to clarify Canada's position in the international scene at such world gatherings as the Food and Agriculture Organization Conference at Quebec, the San Francisco Conference, the International Labour Organization Conference at Philadelphia, the UNRRA Conference at Montreal, the Quebec Conferences, the UNESCO Conference at Paris and the United Nations gatherings in New York.

Education by Radio.*—Radio as an educational medium is playing an increasingly large part in Canadian life. The Canadian Broadcasting Corporation devotes a large portion of its broadcast time on the English- and French-language networks to programs of an educational nature, both for children and adults. Program planners aim at a good balance of information and education on the one hand, and entertainment and showmanship on the other. Wherever possible, these factors are combined.

School Broadcasts.—In all nine provinces of Canada, the CBC co-operates with Provincial Departments of Education in broadcasting special programs related to the courses of study conducted in school classrooms. In Quebec, French-language school broadcasts are heard under the title "Radio-Collège". English-language stations in Quebec carry the Ontario school broadcasts, for the benefit of English-speaking listeners.

In the 1946-47 season, the CBC prepared and financed a series of 27 "National School Broadcasts", heard in school classrooms from coast to coast. These programs presented the dramatized stories of famous Canadian explorers, outstanding Canadian poets and artists, a series on the animals and birds of Canada, and a complete dramatic presentation of Shakespeare's *Macbeth*, in which leading radio actors played the title roles, and for which special music was written. Several programs were exchanged with the "American School of the Air", produced by the Columbia Broadcasting System in the United States. One full week in the "American School of the Air" series was devoted entirely to programs from Canada.

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* Prepared under the direction of Dr. Augustin Frigon, C.M.G., General Manager, Canadian Broadcasting Corporation, Ottawa.

Each of the CBC's "National School Broadcasts" was preceded by a ten-minute review of the leading news event of the week, specially prepared for young listeners by the CBC News Service.

Adult Education.—Programs of an adult educational nature are presented on all CBC networks in a variety of talks, commentaries, interviews, discussion periods, and semi-dramatized programs on a wide range of subjects. *Citizens' Forum,* a discussion program originating at public meetings, and now in its fourth year on the air, dealt during the past season with major questions ranging from the control of atomic energy to domestic industrial relations and the problem of post-war Germany. *Citizens' Forum* is produced in co-operation with the Canadian Association for Adult Education, which has organized about 200 listening and study groups across the country. This Association, with the Canadian Federation of Agriculture, helps in the preparation of another series, *National Farm Radio Forum,* on which farmers from all parts of Canada are able to exchange views and discuss their problems. In its seventh season on the air, the series is followed each week by more than 1,300 listening groups throughout rural Canada. Both of these discussion programs have their counterparts on the CBC French network.

In order to present commentaries on the European scene, the CBC maintains an Overseas Bureau with headquarters at London, England.

Programs dealing with veteran rehabilitation problems were continued during the season. Special programs for women, in both English and French, offered practical information on household problems. The annual series *School for Parents,* with its French counterpart *L'Ecole des Parents,* dealt with child care and psychology. As part of a policy to have the women of Canada hear the voices of women in other lands discussing problems of interest to all women, the CBC produced the series *New World Calling,* in which outstanding women from 18 countries expressed their views on education for the modern girl.

Music and Drama.—In the 1946-47 season, the CBC invited a noted Australian musician, Professor Bernard Heinze, to visit Canada for a series of radio concerts, during which Canadian listeners were introduced to new Australian compositions. This was in addition to regular symphonic concerts, for which the CBC pays leading Canadian symphony orchestras some $50,000 annually. Many young Canadian musicians were introduced in recital series, and the Corporation also presented special musical programs for children.

By far the greatest number of dramatic presentations on both English- and French-language networks were the work of Canadian authors. Significant productions were the dramatization of the Canadian novel *Two Solitudes* by Hugh McLennan, and the world premiere, in a radio dramatization, of the poem *Behind the Log,* by the noted Canadian poet, E. J. Pratt.

Section 4.—Libraries

The Dominion Bureau of Statistics publishes biennially a Survey of Libraries in Canada; the latest edition lists public, university, government and other special libraries, showing the location, size, etc., of each. The latest report issued is the Survey for 1944-46 which contains detailed information on library service for 1945.

Canadian Library Association.—The year 1946 is memorable in the history of Canadian libraries as the inaugural year of the Canadian Library Association. The Organizational Conference was held at McMaster University, Hamilton, Ont., June 14-16. Delegates representing every phase of administrative and professional responsibility within the Canadian library scene were present. A Constitution was adopted and representative executive officers were elected including a full-time National Secretary.

The proposed program of activities for the Association includes projects of national interest in the field of public-library service; improvement of the professional qualifications of librarians with a corresponding improvement in salary schedules; promotion of recommendations for the adoption of modern methods of community library service and extra-curricular activities for libraries; co-operation with the Dominion Government on such matters as distribution of government publications and participation in the work of the United Nations Educational, Scientific and Cultural Organization.

Public Libraries.—Public libraries in Canada are primarily urban institutions. In cities of over 10,000 population about 92 p.c. of the people have some measure of library service; in smaller urban centres the proportion is 42 p.c. While only 5 p.c. of the rural population is at present provided with library service, the recent interest being shown in rural library service provided by regional and travelling libraries promises to alter this situation in the near future. In interpreting the provincial statistics of public libraries, it should be kept in mind that in the predominantly rural provinces like the Maritimes and the Prairie Provinces urban libraries cannot serve more than one-third of the population, while in the more urban provinces of Ontario, Quebec and British Columbia it is possible for them to serve nearly double that number. Other types of library service, figures for which are not included with those of public libraries, provide more of the public's reading material in some provinces than in others. For instance, church or parish libraries, are known to be fairly numerous and commercial lending libraries are an important source of reading, especially of fiction, though no statistical information has been collected for these since the Census of 1931. Consideration should also be given to private libraries of the home and, since no record of them is possible, it is necessary to consider the statistics of public libraries as the record of a certain type of institution rather than as a complete record of the libraries to which the public has access. Individual libraries for 1945 may be classified by the following population units, according to the returns of the 1941 Census.

1.—Distribution of Public Libraries by Population Unit, 1945

Population Unit	Cities and Towns	Towns and Villages	Rural [1]
	No.	No.	No.
Under 1,000	–	201	4
1,000– 4,999	–	176	19
5,000– 9,999	–	46	221
10,000–19,999	27	–	–
20,000–39,999	20	–	–
40,000–99,999	8	–	–
100,000 or over	13	–	–

[1] Size of unit based on the Annual Report of the Ontario Department of Education and of the British Columbia Library Commission.

Included in these groups are some 300 "one-man" libraries, and an additional 100 libraries staffed partly or entirely by volunteer workers. Some of the latter are conducted by members of religious orders and a larger proportion of them by members of local organizations.

2.—Summary Statistics of Public Libraries, by Provinces, Library Years Ended in 1945, with Totals for Alternate Years 1931-43

Year and Province or Territory	Volumes	Circulation	Registered Borrowers	Expenditure on Books, Periodicals and Repairs	Total Expenditure
	No.	No.	No.	$	$
Totals, 1931	**4,516,206**	**21,135,354**	[1]	**509,322**	[1]
Totals, 1933	**4,770,981**	**22,376,340**	**1,114,201**	**421,142**	[1]
Totals, 1935	**4,848,793**	**21,106,742**	**1,097,247**	**448,251**	[1]
Totals, 1937	**5,070,132**	**19,560,375**	**1,062,187**	**502,509**	**2,041,486**
Totals, 1939	**5,175,811**	**20,728,151**	**1,045,521**	**494,776**	**2,131,199**
Totals, 1941	**5,495,543**	**20,283,618**	**1,057,336**	**530,064**	**2,154,437**
Totals, 1943	**5,681,291**	**20,056,094**	**1,105,990**	**611,891**	**2,484,705**
1945					
Prince Edward Island	63,707	171,058	23,992	5,201	15,863
Nova Scotia	122,416	162,444	15,547	4,637	18,478
New Brunswick	104,378	165,763	30,192	5,899	25,164
Quebec	712,040	960,513	78,959	44,657	275,580
Ontario	3,862,543	13,351,620	784,784	436,482	1,838,683
Manitoba	129,749	742,865	43,754	26,643	113,228
Saskatchewan	251,548	885,831	59,599	30,212	141,285
Alberta	254,477	1,504,241	75,499	42,468	172,734
British Columbia	442,821	2,065,509	142,013	72,807	289,011
Yukon	13,210	6,448	128	Nil	450
Totals, 1945	**5,956,889**	**20,016,292**	**1,254,467**	**669,006**	**2,890,476**

[1] Not available.

In the larger centres the main libraries are conducted as municipal institutions usually by a board appointed by the city or town council. The more numerous smaller libraries are conducted by voluntary associations. Small provincial grants are given to libraries of both types in most of the provinces, but not in New Brunswick, Quebec and Manitoba. There is a provincial centre for the direction and encouragement of public-library development in the Public Libraries Branch of the Ontario Department of Education, and in the Public Library Commission of British Columbia. This seems to be one of the most effective means of assisting the library movement; public-library service is more complete in Ontario and British Columbia than in the other provinces. Prince Edward Island now possesses a centre in the headquarters of its provincial library, and Nova Scotia in its recently founded Regional Libraries Commission. The Province of Saskatchewan has undertaken extensive reorganization of the libraries and a program of regional libraries is in process of development.

Circulation.—The circulation of books in the Dominion is confined to about 40 p.c. of the population and averages about five books per person per year. It is estimated that about one-quarter of the patrons of libraries are children, which is approximately the same proportion that school enrolment bears to the total population of the country.

3.—Circulation Reported by Public Libraries, by Provinces, Library Years Ended in 1945

Province or Territory	Adult Fiction	Adult Non-fiction	Juvenile	Un-classified	Total	Registered Borrowers
	No.	No.	No.	No.	No.	No.
Prince Edward Island	79,931	25,681	65,446	Nil	171,058	23,992
Nova Scotia	29,266	3,685	14,002	115,491	162,444	15,547
New Brunswick	83,975	19,829	19,165	42,794	165,763	30,192
Quebec	356,566	269,595	201,836	132,516	960,513	78,959
Ontario	5,843,766	2,284,476	4,625,172	598,206	13,351,620	784,784
Manitoba	324,652	162,204	245,100	10,909	742,865	43,754
Saskatchewan	470,733	117,096	247,224	50,778	885,831	59,599
Alberta	360,564	109,065	314,581	720,031	1,504,241	75,499
British Columbia	871,656	510,245	496,484	187,124	2,065,509	142,013
Yukon	4,948	100	1,400	Nil	6,448	128
Totals	**8,426,057**	**3,501,976**	**6,230,410**	**1,857,849**	**20,016,292**	**1,254,467**

[1] Not available.

An analysis of the circulation of non-fiction books indicates that, among communities of different size, persons living in the larger communities read more philosophy, and those living in the smaller communities more religion. Sociology and the arts are studied to a greater extent in the larger communities (except where there are regional libraries), while the smaller centres are high in literature, history and travel. Biography is popular everywhere; next to travel books, it is on the whole the most popular class of non-fiction.

Receipts and Expenditures.—Except for the cities of Quebec Province, where recent provincial assistance and the inclusion of several association libraries lowered the proportion of municipal support, between 80 and 96 p.c. of all money received comes from local taxes. The amounts shown under that heading in Table 4 contain, on an average, about 2 p.c. from school boards, townships, counties or rural municipalities.

4.—Public Library Receipts, by Provinces, Library Years Ended in 1945, with Totals for Alternate Years 1937-43

Year and Province or Territory	Balance from Preceding Year	Local Taxes	Provincial Grants	Other Grants or Donations	All Other Receipts	Total
	$	$	$	$	$	$
Totals, 1937	**57,957**	**1,678,412**	**62,948**	**25,198**	**216,971**	**2,041,486**
Totals, 1939	**79,392**	**1,753,775**	**71,971**	**30,536**	**195,525**	**2,131,199**
Totals, 1941	**65,566**	**1,796,248**	**72,255**	**22,152**	**198,216**	**2,154,437**
Totals, 1943	**77,469**	**2,050,899**	**101,875**	**29,648**	**224,814**	**2,484,705**
1945						
Prince Edward Island	Nil	Nil	15,863	Nil	Nil	15,863
Nova Scotia	1,562	9,111	Nil	762	7,043	18,478
New Brunswick	912	19,954	"	320	3,978	25,164
Quebec	7,591	100,150	52,651	3,860	111,328	275,580
Ontario	65,537	1,559,398	50,627	10,507	152,614	1,838,683
Manitoba	76	111,809	Nil	247	1,096	113,228
Saskatchewan	4,880	123,610	3,375	155	9,265	141,285
Alberta	2,577	146,723	5,424	684	17,326	172,734
British Columbia	1,505	263,439	5,214	450	18,403	289,011
Yukon	Nil	Nil	450	Nil	Nil	450
Totals, 1945	**84,640**	**2,334,194**	**133,604**	**16,985**	**321,053**	**2,890,476**

The distribution of expenditure advocated is from 50 to 55 p.c. for salaries; 25 p.c. for book stock, including binding and repairs; and the balance for other items of maintenance. This procedure is followed closely by all cities.

5.—Public Library Expenditures, by Provinces, Library Years Ended in 1945, with Totals for Alternate Years 1937-43

Province or Territory	Books and Periodicals	Binding and Repair	Salaries of Library Staffs	Wages of Building Staffs	All Other Expenditures	Balance at End of Year	Total
	$	$	$	$	$	$	$
Totals, 1937	**502,509**	[1]	**980,790**	**496,691**	[1]	**61,496**	**2,041,486**
Totals, 1939	**494,776**	[1]	**947,828**	**613,893**	[1]	**74,702**	**2,131,199**
Totals, 1941	**453,030**	**77,034**	**1,059.642**	**128,247**	**366,986**	**69,313**	**2,154,437**
Totals, 1943	**528,145**	**83,746**	**1,188,976**	**153,510**	**433,544**	**96,784**	**2,484,705**
1945							
Prince Edward Island	5,162	39	8,110	Nil	2,552	Nil	15,863
Nova Scotia	4,350	287	7,735	729	3,849	1,528	18,478
New Brunswick	5,387	512	10,994	2,700	4,115	1,456	25,164
Quebec	35,235	9,422	126,830	12,776	83,640	7,677	275,580
Ontario	377,546	58,936	880,620	132,024	307,006	82,551	1,838,683
Manitoba	21,987	4,656	65,326	9,249	11,910	100	113,228
Saskatchewan	26,778	3,434	60,918	8,328	31,270	10,557	141,285
Alberta	36,266	6,202	90,476	4,507	17,154	18,129	172,734
British Columbia	61,343	11,464	152,701	11,221	47,988	4,294	289,011
Yukon	200	Nil	Nil	200	50	Nil	450
Totals, 1945	**574,254**	**94,952**	**1,403,710**	**181,734**	**509,534**	**126,292**	**2,890,476**

[1] Not available.

University and College Libraries.—The statistics summarized in Table 6 represent returns from 166 university and college libraries for 1945. Comparatively few such libraries keep circulation statistics. The use of the libraries for reference and critical reading by students makes the circulation statistics of little value as a standard of measurement. In the two years previous to 1941, the increase was 300,000 volumes, but in the period 1941-43 the increase was only 40,000, due to the difficulty of obtaining new books and replacements during that period. The returns for 1945 show an increase of 400,000 volumes over those for 1943.

6.—Summary Statistics of University and College Libraries, Library Years Ended in 1945, with Totals for 1941 and 1943

Province	Libraries	Volumes	Pamphlets Where Recorded	Periodicals Received	Expenditures on Books and Periodicals	Librarians and Assistants	
						Total Full-Time	Trained in Librarianship
	No.	No.	No.	No.	$	No.	No.
Prince Edward Island	2	12,153	—	104	624	3	2
Nova Scotia	16	343,394	80,792	2,284	13,619	16	9
New Brunswick	5	112,225	1,100	301	5,477	6	3
Quebec	76	2,361,737	226,922	9,058	88,184	80	32
Ontario	39	1,563,093	253,012	6,403	90,559	121	53
Manitoba	7	226,164	3,139	990	14,429	19	9
Saskatchewan	11	152,004	1,850	477	12,105	13	7
Alberta	7	165,796	1,800	985	9,764	13	7
British Columbia	4	186,805	—	765	17,447	16	7
Totals, 1945	**167**	**5,123,371**	**568,615**	**21,367**	**252,208**	**287**	**129**
Totals, 1943	**168**	**4,717,361**	**911,774**	**19,179**	**236,324**	**252**	**118**
Totals, 1941	**170**	**4,678,383**	**609,981**	**18,957**	**232,064**	**256**	[1]

[1] Information not available.

Government Libraries.—Returns from the Dominion and Provincial Government libraries include the Parliamentary Library, the Legislative Libraries of the nine provinces and the various departmental and research libraries maintained for reference and record. Numerically, the Dominion Government libraries are almost double those of the provinces but, exclusive of the Dominion Parliamentary Library which contains 500,000 volumes, the available book stock of the provincial libraries is equal to that of the Dominion libraries.

One outstanding feature of the provincial libraries is the teachers' libraries. Over 150,000 volumes are available for the use of approximately 75,000 teachers employed in the publicly controlled schools of Canada. In 1945, they borrowed, postage free, 110,000 books from the reference libraries established by the provincial authorities in education.

Business Libraries.—The past decade has seen some expansion in the number, size and classification of the libraries termed "business"; those of financial institutions, such as banks and insurance companies, comprise the greater number. Since the War, new libraries have been established by firms engaged in production processes that require special techniques and research; libraries of the larger newspapers and public utility corporations are included in this group.

Technical Society Libraries. — Law, medicine, pharmacy, entomology, engineering, art, astronomy and other professional and technical libraries are included in technical society libraries. The larger libraries contain as many as 30,000 volumes, the smaller ones from 500 to 1,000. Statistics of these libraries are given in Table 7.

7.—Summary Statistics of Business, Technical Society and Government Libraries, Library Years Ended in 1945, with Totals for 1941 and 1943

Classification	Libraries	Volumes	Pamphlets Where Recorded	Periodicals and Newspapers	Full-time Libraries			Libraries Reporting Loans to Other Libraries
					Libraries	Total Staff	Staff Trained in Librarianship	
	No.	No.	No.	No.	No.	No.	No.	No.
Government Libraries—								
Dominion	48	1,426,768	379,412	7,870	28	102	27	16
Provincial	27	908,264	346,205	2,096	19	80	19	9
Technical Society Libraries—								
Law	13	264,237	2,070	265	7	15	3	Nil
Other	17	110,675	35,962	1,347	6	8	5	2
Business libraries	33	128,565	42,104	3,035	25	58	12	9
Young Men's Christian Assoc. Young Women's Christian Assoc. Young Men's Hebrew Assoc.	3	12,883	3,095	106	2	2	2	Nil
Other libraries	21	142,589	7,864	604	5	19	2	1
Totals, 1945	**162**	**2,993,981**	**816,712**	**15,323**	**92**	**284**	**70**	**37**
Totals, 1943	**167**	**2,879,993**	**738,997**	**16,176**	**86**	**253**	**61**	**37**
Totals, 1941	**158**	**2,833,886**	**728,892**	**19,293**	**85**	**247**	**75**	**49**

Regional Libraries.—In the early 1930's, with the assistance of the Carnegie Corporation of New York, several experiments were undertaken with a view to providing more adequate library service to smaller communities and rural districts. These experiments were undertaken in the belief that the county or similar district, rather than the isolated city or town, is the proper unit of library work and administration. The Fraser Valley experiment in British Columbia, the first to be undertaken, has become a permanent regional library, and two other similar libraries have been established in the Province; in Prince Edward Island it has become a permanent provincial library system. Nova Scotia, in 1938, established the Regional Libraries Commission, which employed a full-time director to assist interested areas of the Province in organization. A small regional library was established in New Brunswick in 1937. In Ontario a number of county library schemes have been established in the southwestern part of the Province where co-operation on a county or township basis has been developing. In 1946, the Province of Saskatchewan passed legislation providing for the establishment of regional libraries, and a full-time librarian was appointed to supervise their organization in the Province.

Section 5.—Canada and UNESCO*

In the United Nations Charter, drafted at San Francisco in the spring of 1945, the nations undertook to promote (Article 55) "international cultural and educational co-operation", and (Article 56) "to take joint and separate action in co-operation with the Organization for the achievement of the purposes set forth in Article 55". Article 57 provided that "specialized agencies", established by intergovernmental agreement in cultural, educational and related fields could be brought into relationship with the Economic and Social Council of the United Nations, by agreements approved by the General Assembly.

With a view to establishment of a "specialized agency" in the field of educational and cultural relations the British Government, and the French Government in association with it, invited the nations to be represented at a conference in London, England, beginning Nov. 1, 1945. Forty-four of the United Nations arranged for representation. The Canadian Government sent a delegation of six persons. The Conference had before it, when it met, a draft constitution for a United Nations Educational and Cultural Organization which had been prepared by the Conference of Allied Ministers of Education with the assistance of the United States Department of State, together with a draft submitted independently by the French Government which was based on its experience with the League of Nations Organization for International Intellectual Co-operation. By Nov. 16, agreement had been reached, by the representatives of the 44 nations, on a revised draft of a charter for an Educational, Scientific and Cultural Organization, to be presented to their Governments for formal approval. In the process of revision the word "Scientific" had been added to the proposed name, and the Organization became known as UNESCO. A Preparatory Commission was established at the same time.

In the course of the ensuing 12 months the Governments of 27 countries formally undertook to adhere to the constitution as drafted (Canada, in August, 1946), and the Preparatory Commission organized the First Conference to be held in Paris, France, during November and December, 1946. The Preparatory Commission carried on its work at London until late September, then moved to Paris, which had been agreed upon as the permanent headquarters of the Organization. To the Paris Conference, the Canadian Government sent a delegation of 11 persons.

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*Prepared by J. E. Robbins, Chief, Education Statistics Branch, Dominion Bureau of Statistics, in colloboration with the Department of External Affairs.

The purpose of UNESCO as defined in its Constitution "is to contribute to peace and security by promoting collaboration among the nations through education, science and culture in order to further universal respect for justice, for the rule of law and for the human rights and fundamental freedoms which are affirmed for the peoples of the world, without distinction of race, sex, language or religion, by the Charter of the United Nations".

The Secretariat is organized in seven program sections: (1) Education; (2) Media of Mass Communication (press, radio and films); (3) Libraries, Museums, and Archives; (4) Natural Sciences; (5) Social Sciences and Humanities; (6) Creative Arts; (7) Rehabilitation and Reconstruction. The work in rehabilitation and reconstruction concerns all of the other sections. It is expected to be of a short-term character, but is of great immediate importance to the war-devastated countries. The Paris Conference approved the organization of a special campaign for voluntary contributions from individuals and organizations in the more favourably circumstanced countries, with an objective of $100,000,000. Donations of suitable goods (school supplies, scientific equipment, etc.) are acceptable as well as money.

The Chairman of the Executive Board is the Honourable Victor Doré, Canadian Ambassador to Belgium. At a meeting in April the Executive Board agreed that the work of the Education Section should be focussed this year on "fundamental education" and "education for international understanding". Fundamental education is envisaged as a long-term, world-scale "attack upon ignorance", in which UNESCO will provide guidance to countries where the rate of illiteracy is high. Pilot projects are planned in Haiti, China and British East Africa. Activities under the heading "education for international understanding" will include assistance in the revision of textbooks and teaching materials, establishment of international study centres, international relations clubs in schools, etc. Progress will be reviewed at the next annual conference, to be held at Mexico city in the autumn of 1947.

The Mass Communications Section in its first year is to prepare a report on the feasibility of a world-wide radio network, to supply talks and discussions on UNESCO matters for national networks, to obtain signatures to a convention to facilitate the exchange of films, to help set up and operate a United Nations Film Board, to stimulate the establishment of national visual councils, to work toward the revision of international copyright conventions, to collaborate in a world press conference, and to investigate postal, wireless and cable costs.

In the field of the Creative Arts particular emphasis is to be placed on facilitating the movement of personnel and works of arts as between countries. Preservation of the art and culture of primitive and non-industrial peoples is to be aided, and "the freedom of the creative artist to accomplish his proper purpose as an artist in any nation", since it is "a matter of concern to the peoples of all nations", is to come under the protection of UNESCO "wherever it is put in danger".

The Libraries and Museums Section is to develop a world bibliographical and inter-library loan service, a document reproduction service, to work toward the development of public-library service and the reduction of such barriers as customs tariffs and carriage charges. Though they have less of the spectacular about them than activities of some of the other sections, they are of first importance to the two remaining sections, which are those concerned primarily with scholarship, and the increase of knowledge.

The Natural Science Section will work closely with the international scientific unions. The list of approved projects and procedures to be followed is long. Of particular interest is the plan to send teams of nutritional scientists to China and India, and to undertake, on a broader basis, the study of problems of living in the vast Amazon forest belt, which, could it be made inhabitable, might be expected to support a population of many millions.

The Social Science Section, too, envisages a number of basic studies: a study of tensions conducive to war, a study of population distribution and problems, and a study of the influences of modern technological developments. The philosophers and other scholars in the Humanities will, among other matters, give attention to plans for translation of the world's classics.

The constitution of UNESCO provides for participation of national bodies in the work of the organization, in the following terms: (1) Each Member State shall make such arrangements as suit its particular conditions for the purpose of associating its principal bodies interested in educational, scientific and cultural matters with the work of the Organization, preferably by the formation of a National Commission broadly representative of its Government and such bodies. (2) National Commissions or national co-operating bodies, where they exist, shall act in an advisory capacity to their respective delegations to the General Conference and to their Governments in matters relating to the Organization and shall function as agencies of liaison in all matters of interest to it.

In October, 1946, the Department of External Affairs called together at Ottawa a representative group of persons connected with educational, scientific and cultural organizations for the following purposes: (1) to advise on the composition of the Canadian delegation to the Paris Conference; and (2) to make recommendations on the means whereby the principal Canadian bodies interested in educational, scientific and cultural matters might be associated with the work of the Organization whether by the formation of a Canadian National Commission or by other means.

CHAPTER XI.—SURVEY OF PRODUCTION*

CONSPECTUS

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The present study is limited to a consideration of the gross and net value of commodity production. The operations of the nine branches of industry considered here are directed either through primary or secondary phases toward the production of commodities rather than services.

Net production, in general, represents an estimate of the amount contributed to the national economy by the leading industrial groups engaged in commodity production. It is made up of the total value less the cost of materials, fuel, purchased electricity and process supplies consumed in the production process. For purposes of ordinary economic discussion, the net figure should be used in preference to the gross, in view of the large amount of duplication that the latter includes.

Current Trends.—The gross value of commodities produced in Canada was greater during 1944 than in any other year, the peak of war production being reached in that year. Net production was valued at $6,737,000,000 in 1944 against $2,899,000,000 in 1938, an increase of 132·4 p.c. which may be compared with an advance of only 30·4 p.c. in the index of wholesale prices during the same period. Thus, the gain in net value of production was due largely to a change in volume rather than in prices. The relationship of the value and price advances in 1944 over 1943 suggests that the volume of production was slightly greater in the later year.

The ending of the War in 1945 brought about an immediate reduction in the output of Canadian industry and the index of industrial production averaged over 14 p.c. less than in 1944. The receding trend was continued in 1946. General employment was 4·3 p.c. lower in 1945 than in 1944 and was still less favourable in 1946.

The index of wholesale prices, on the other hand, was only fractionally greater in 1945 as compared with 1944, but the advance was quickened somewhat during 1946. The rise in prices in recent months was doubtless insufficient to offset the decline in volume, and production in 1944 established a maximum which obviously has not been equalled during the subsequent period.

Section 1.—Leading Branches of Production

Table **1** shows the gross and net values of production, by industries, for the years 1939 to 1944. A new method of compiling gross and net values of agricultural production has been recently devised: the gross is now obtained by adding cash sales to the value of goods produced and consumed on the farm by the farm family and adjustment is then made for the changes in grain and live-stock inventories;

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* Revised under the direction of Dr. C. M. Isbister, Chief Economist, Central Research and Development Division, Dominion Bureau of Statistics, by Sydney B. Smith, Chief, Business Statistics Branch.

the cost of materials, such as purchased seed and feed, gasoline and oil, repair parts, twine, fertilizers and insecticides, is deducted from the gross to give the net value. As a result of this change and an adjustment in the primary data for the duplication that exists between the forest industry and agriculture, the figures in Table **1** have been revised since the publication of the 1946 Year Book. A general description of the method used in computing gross and net production figures is given in the "Survey of Production", an annual report issued by the Dominion Bureau of Statistics.

Each of the nine industrial groups shown in Table **1**, except mining and construction, was more productive in 1944 than in 1943. The most outstanding increase was in agricultural production, the net value of which rose more than 23 p.c. to a total of $1,533,000,000. This was a greater output than was shown in any other year. The percentage increase in the net value of fisheries production was 3 p.c. and the total for manufactures moved up more than 5 p.c. from the high level of the preceding year.

The net value of agricultural production in 1944 was 22·8 p.c. of the total for the nine groups compared with 19·9 p.c. in 1943. Minor increases in relative position were also shown in forestry, trapping and custom and repair, with manufacturing remaining the same as in 1943. Over the six-year period 1938 to 1944, manufacturing has recorded a marked improvement in relative importance. The proportion of the net value of manufactured products to net total production rose from 49·3 p.c. in the pre-war year to 59·6 p.c. in 1944.

1.—Gross and Net Values of Production, by Industries, 1939-44

NOTE.—Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and supplies consumed in the productive process.

Industry	1939	1940	1941	1942	1943	1944
	GROSS VALUES					
	$	$	$	$	$	$
Agriculture	900,384,000	970,014,000	1,013,763,000	1,615,453,000	1,524,379,000	1,873,825,000
Forestry	466,032,290	627,365,611	711,004,556	763,988,245	810,154,089	887,973,532
Fisheries	52,883,913	60,053,631	82,522,675	103,118,177	118,610,634	123,705,565
Trapping	7,919,412	11,207,930	15,138,040	23,801,213	21,579,615	23,988,773
Mining	663,342,816	748,344,045	866,293,332	946,021,397	974,414,921	897,407,212
Electric power	151,880,969	166,228,773	186,080,354	203,835,365	204,801,508	215,246,391
Less: duplication in forest production[1]	*37,202,976*	*43,693,007*	*41,600,143*	*46,974,440*	*64,000,614*	*78,294,000*
Totals, Primary Production	2,205,240,424	2,539,520,983	2,833,201,814	3,609,242,957	3,589,939,153	3,943,852,473
Construction	373,203,680	474,122,778	639,750,624	635,649,570	572,426,551	449,838,059
Custom and repair	160,374,000	164,481,000	192,733,000	208,379,000	213,622,000	243,424,000
Manufactures	3,474,783,528	4,529,173,316	6,076,308,124	7,553,794,972	8,732,860,999	9,073,692,519
Totals, Secondary Production	4,008,361,208	5,167,777,094	6,908,791,748	8,397,823,542	9,518,909,550	9,766,954,578
Less: duplication in manufactures[2]	*620,327,866*	*801,136,719*	*957,448,976*	*1,071,237,766*	*1,148,896,816*	*1,160,974,424*
Grand Totals	**5,593,273,766**	**6,906,161,358**	**8,784,544,586**	**10,935,828,733**	**11,959,951,887**	**12,549,832,627**

For footnotes, see end of table, p. 318.

1.—Gross and Net Values of Production, by Industries, 1939-44—concluded

Industry	1939	1940	1941	1942	1943	1944
	NET VALUES					
	$	$	$	$	$	$
Agriculture	722,263,000	774,023,000	803,185,000	1,351,606,000	1,245,843,000	1,533,206,000
Forestry	271,723,416	370,121,275	421,419,139	429,079,260	462,815,227	507,357,605
Fisheries	34,378,681	38,106,690	51,769,638	64,821,702	74,655,678	76,889,487
Trapping	7,919,412	11,207,930	15,138,040	23,801,213	21,579,615	23,988,773
Mining	393,232,044	448,080,729	497,904,632	514,109,951	475,529,364	454,022,468
Electric power	149,863,892	163,780,757	183,146,426	200,345,240	200,833,297	209,757,908
Less: duplication in forest production[1]	*37,202,976*	*43,693,007*	*41,600,143*	*46,974,440*	*64,000,614*	*61,357,833*
Totals, Primary Production	1,542,177,469	1,761,627,374	1,930,962,732	2,536,788,926	2,417,255,567	2,743,864,408
Construction	183,706,338	206,893,992	269,561,885	310,917,190	293,538,167	249,037,017
Custom and repair	108,821,000	111,608,000	130,778,000	141,395,000	144,952,000	165,174,000
Manufactures	1,531,051,901	1,942,471,238	2,605,119,788	3,309,973,758	3,816,413,541	4,015,776,010
Totals, Secondary Production	1,823,579,239	2,260,973,230	3,005,459,673	3,762,285,948	4,254,903,708	4,429,987,027
Less: duplication in manufactures[2]	*253,786,771*	*350,845,638*	*410,298,515*	*426,201,970*	*410,701,516*	*437,045,069*
Grand Totals	**3,111,969,937**	**3,671,754,966**	**4,526,123,890**	**5,872,872,904**	**6,261,457,759**	**6,736,806,366**

[1] Eliminates duplication between the agriculture and forestry totals. [2] Eliminates duplication under "Manufactures"; this item includes sawmills, pulp and paper mills, etc., which are also included under other headings above.

Table 1 classifies industry into primary and secondary production, but naturally many stages of the manufacturing industries are closely connected with the primary resources. Fish-curing and -packing plants, for instance, are operating in close relationship to the fishing fleets; sawmills with forestry, and smelters and refineries with metal mines. The gross and net values of production of such processing industries are given separately in Table 2. This table is designed to indicate the method of computing the duplication between primary industries and manufactures and consequently to establish the levels of "manufactures, not elsewhere stated".

2.—Gross and Net Values of Production of the Processing Industries, 1943 and 1944

Industry	1943		1944		Change in Net Value in 1944 from 1943	Percentage Change in Net Value, 1944 from 1943	Percentage of Net Value to Total Net Production 1944
	Gross	Net	Gross	Net			
	$	$	$	$	$	p.c.	p.c.
Fish curing and packing	64,804,969	20,588,039	68,882,879	22,066,801	+1,478,762	+7·18	5·05
Sawmilling	195,885,336	91,714,000	216,556,623	96,528,955	+4,814,955	+5·25	22·09
Pulp and paper	345,653,470	165,485,944	369,846,086	174,492,103	+9,006,159	+5·44	39·93
Non-ferrous metal smelting and refining	511,213,376	111,857,020	474,206,801	123,303,038	+11,446,018	+10·23	28·21
Cement	12,709,852	7,152,763	12,646,741	6,882,354	−270,409	−3·78	1·57
Clay products	6,608,193	5,346,386	6,997,425	5,478,923	+132,537	+2·48	1·25
Lime	6,832,992	4,908,510	7,051,785	5,005,235	+96,725	+1·97	1·15
Salt	5,188,628	3,648,854	4,786,084	3,287,660	−361,194	−9·90	0·75
Totals	**1,148,896,816**	**410,701,516**	**1,160,974,424**	**437,045,069**	**+26,343,553**	**+6·41**	**100·0**

Section 2.—Provincial Distribution of Production

Ontario produced about 40 p.c. of the Canadian output in 1944, leading other provinces by a considerable margin. The importance of Quebec as a producer of commodities rose from 25·1 p.c. in 1938 to 28·2 p.c. in 1944. Due mainly to increases in farm output, the position of Saskatchewan was raised from 4·8 p.c. to 7·6 p.c. The relative importance of the other seven provinces was somewhat less in the year of maximum wartime production than in 1938. Each of the nine provinces participated in the industrial expansion of wartime but war industries were largely concentrated in the Provinces of Ontario and Quebec. The increase of about $1,400,000,000 in the commodity production of Ontario over the six-year period exceeded the achievement of any other province. However, Quebec increased its production by 161 p.c., while Ontario advanced 113 p.c. The expansion in Quebec was relatively greater than in any other province in Eastern Canada. The output of Nova Scotia was nearly doubled, and Prince Edward Island and New Brunswick showed gains of 123 p.c. and 113 p.c., respectively.

Production in Saskatchewan was particularly heavy during 1944 due to favourable farming conditions and the higher price level, the value of output being about 369 p.c. greater than in 1938. The British Columbia total was almost 130 p.c. higher, the Manitoba total 116 p.c. higher and the Alberta total about 99 p.c. more.

3.—Gross and Net Values of Production, by Provinces, 1943 and 1944

Province or Territory	1943				1944			
	Gross Value	Net Value			Gross Value	Net Value		
		Amount	P.C. of Total	Per Capita[1]		Amount	P.C. of Total	Per Capita[1]
	$	$		$	$	$		$
P.E.I.	31,793,365	19,428,160	0·31	213·50	32,315,329	18,706,736	0·28	205·57
N.S.	328,455,624	183,565,443	2·93	302·41	340,164,225	191,414,946	2·84	312·77
N.B.	231,813,326	126,557,333	2·02	273·34	247,781,350	134,291,199	1·99	290·67
Que.	3,595,389,788	1,817,829,691	29·04	525·84	3,678,758,531	1,900,732,337	28·21	543·07
Ont.	5,242,028,418	2,609,506,516	41·67	666·20	5,348,229,765	2,703,802,260	40·14	681·92
Man.	529,265,699	283,674,089	4·53	390·74	587,305,693	312,923,535	4·65	427·49
Sask.	510,080,239	329,917,184	5·27	391·83	722,769,295	513,408,265	7·62	606·87
Alta.	525,950,131	319,209,886	5·10	403·04	651,550,857	409,154,352	6·07	500·19
B.C.	956,113,648	563,951,164	9·01	626·61	935,304,866	547,238,198	8·12	587·17
Yukon and N.W.T.	9,061,649	7,818,293	0·12	459·90	5,652,716	5,134,538	0·08	302·03
Totals	**11,959,951,887**	**6,261,457,759**	**100·00**	**530·09**	**12,549,832,627**	**6,736,806,366**	**100·00**	**562·57**

[1] Based on estimated population figures as given at p. 100.

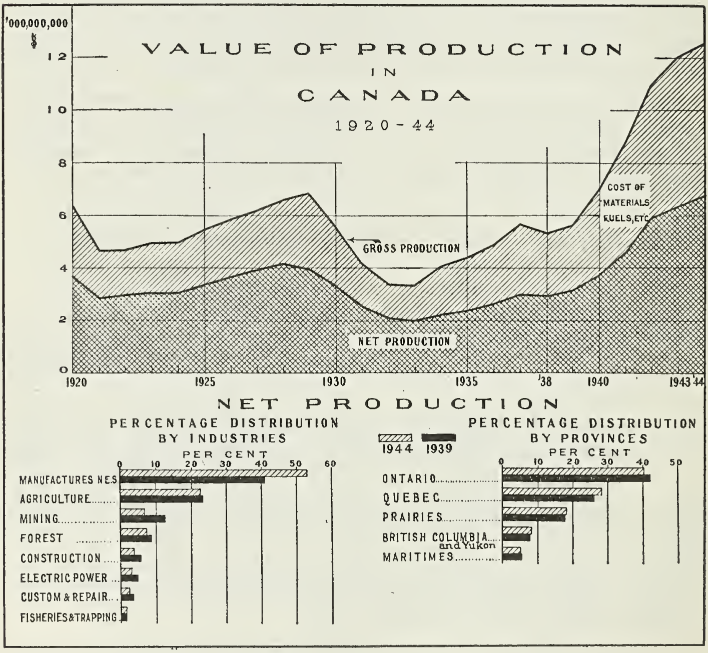
Per Capita Production.—The Dominion total of net commodity production in 1944 at $563 per capita was $33 above the figure for 1943, the estimated increase in the population having been only 1 p.c.

Each of the provinces showed per capita betterment in 1944 over the preceding year, except Prince Edward Island and British Columbia. Ontario, with its pre-eminent industrial position and diversification, was in first place in this respect, with a net commodity output of $682 per capita, a gain of approximately $16 over the level of 1943. Saskatchewan ranked second and British Columbia third.

Section 3.—Leading Branches of Production in Each Province

Maritime Provinces.—The predominance of farming as a source of income is apparent in Prince Edward Island, accounting for 61 p.c. of the income of that Province in 1944. In Nova Scotia, the total output of manufactures was 49 p.c. of the net production of the nine groups operating in the Province. Manufacturing as a whole constituted 46 p.c. of the net output of New Brunswick, while forestry, including sawmilling and pulp and paper, accounted for 31 p.c.

Quebec.—The production of manufacturing plants amounted to 71 p.c. of the provincial total; agriculture produced 11 p.c., indicating the marked disparity between the two main industries of the Province.



Ontario.—In Ontario, the outstanding position of manufactures in the field of production is evident from the records. After eliminating the processing industries, the share of manufacturing in 1944 was somewhat greater than two-thirds of the total. The predominance of the group was accentuated during the war period.

Prairie Provinces.—The advance in the output of agriculture and manufactures was the determining factor in the wartime contribution of Manitoba, the relative importance of the two main groups in 1944 having been 46·9 p.c. and 38·5 p.c., respectively. The output of Saskatchewan is subject to marked fluctuation due to the dominant position of agriculture as a source of income; amounting to nearly 84 p.c. of the provincial total in 1944. The output of agriculture in Alberta at 61 p.c. was considerably greater than the return from all other activities concerned with the production of commodities.

British Columbia.—The advance in manufacturing production in British Columbia overshadowed the wartime gains in other industrial groups. The proportion of the total in 1944, after the elimination of duplication, was nearly 46 p.c. compared with 20 p.c. for forestry and 10 p.c. for agriculture.

4.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1943 and 1944

NOTE.—For Dominion totals, see Table **1**.

GROSS PRODUCTION

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
1943	$	$	$	$	$
Agriculture	17,078,000	34,411,000	40,454,000	259,493,000	431,562,000
Forestry	1,026,170	24,878,791	71,965,324	317,794,106	196,131,356
Fisheries	4,598,785	32,498,782	15,173,442	7,620,898	5,292,268
Trapping	5,226	609,536	351,886	3,254,790	4,547,294
Mining	Nil	28,716,368	3,646,555	368,519,742	361,176,741
Electric power	512,404	7,945,747	4,930,581	78,891,513	69,046,695
Construction	1,645,660	40,667,401	12,006,608	159,875,335	216,715,281
Custom and repair	957,000	7,726,000	4,705,000	64,432,000	83,519,000
Manufactures	9,577,446	188,463,088	140,934,877	2,852,191,853	4,221,101,063
Less duplication[1]	*−3,607,326*	*−37,461,089*	*−62,354,947*	*−516,683,449*	*−347,063,280*
Totals, 1943	**31,793,365**	**328,455,624**	**231,813,326**	**3,595,389,788**	**5,242,028,418**

	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
1943	$	$	$	$	$
Agriculture	161,082,000	298,603,000	218,476,000	63,220,000	Nil
Forestry	11,104,181	8,723,249	10,861,502	167,643,460	25,950
Fisheries	4,564,551	1,154,544	795,000	46,909,869	2,495
Trapping	2,250,623	1,985 649	3,502,585	1,576,025	3,496,001
Mining	18,403,363	47,975,915	46,749,970	94,198,614	5,027,653
Electric power	10,470,325	6,408,515	8,213,638	18,242,533	139,557
Construction	20,190,673	11,128,058	25,142,003	85,055,532	Nil
Custom and repair	12,541,000	9,931,000	11,410,000	18,401,000	"
Manufactures	304,867,912	152,123,360	211,159,142	652,046,313	395,943
Less duplication[1]	*−16,208,929*	*−27,953,051*	*−10,359,709*	*−191,179,698*	*−25,950*
Totals, 1943	**529,265,699**	**510,080,239**	**525,950,131**	**956,113,648**	**9,061,649**

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
1944	$	$	$	$	$
Agriculture	16,362,000	34,726,000	40,918,000	274,789,000	478,277,000
Forestry	1,269,063	26,334,469	75,396,121	360,954,343	197,908,412
Fisheries	4,325,259	35,801,067	16,574,213	7,397,815	4,938,193
Trapping	3,135	354,453	222,279	4,324,521	5,336,213
Mining	Nil	32,873,609	4,095,224	337,684,217	338,455,531
Electric power	544,797	8,571,952	5,205,479	87,042,794	69,295,605
Construction	1,961,471	29,832,726	13,657,043	131,064,232	165,395,169
Custom and repair	1,111,000	8,835,000	5,412,000	73,793,000	94,650,000
Manufactures	10,713,644	204,421,664	152,106,577	2,929,685,183	4,339,797,784
Less duplication[1]	*−3,975,040*	*−41,586,715*	*−65,805,586*	*−527,976,574*	*−345,824,142*
Totals, 1944	**32,315,329**	**340,164,225**	**247,781,350**	**3,678,758,531**	**5,348,229,765**

For footnote, see end of table, p. 323.

4.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1943 and 1944—continued

GROSS PRODUCTION—concluded

Year and Industry	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	$	$	$	$	$
1944					
Agriculture	170,705,000	487,671,000	297,091,000	73,286,000	Nil
Forestry	11,860,135	11,664,530	11,538,775	191,014,536	33,148
Fisheries	3,581,795	1,482,223	929,887	48,671,982	3,131
Trapping	2,688,995	2,776,031	3,312,657	2,305,912	2,664,577
Mining	19,986,098	39,547,130	48,347,137	74,045,485	2,372,781
Electric power	10,923,576	6,753,716	8,759,099	18,026,402	122,971
Construction	19,357,321	12,423,241	27,569,213	48,577,643	Nil
Custom and repair	14,263,000	11,569,000	13,090,000	20,701,000	"
Manufactures	352,334,594	175,349,234	252,949,894	655,844,689	489,256
Less duplication[1]	*−18,394,821*	*−26,466,810*	*−12,036,805*	*−197,168,783*	*−33,148*
Totals, 1944	**587,305,693**	**722,769,295**	**651,550,857**	**935,304,866**	**5,652,716**

NET PRODUCTION

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	$	$	$	$	$
1943					
Agriculture	12,856,000	25,373,000	31,204,000	211,072,000	346,241,000
Forestry	724,914	14,409,569	39,549,139	179,375,860	110,581,131
Fisheries	2,556,640	19,914,080	9,692,550	5,218,914	5,292,268
Trapping	5,226	609,536	351,886	3,254,790	4,547,294
Mining	Nil	21,979,202	3,249,933	134,500,359	183,488,086
Electric power	401,020	6,945,316	4,442,564	78,804,576	69,027,773
Construction	662,513	20,763,148	5,914,640	79,787,352	112,054,213
Custom and repair	650,000	5,243,000	3,193,000	43,720,000	56,670,000
Manufactures	3,021,848	84,909,686	58,956,676	1,280,097,615	1,844,651,587
Less duplication[1]	*−1,450,001*	*−16,581,094*	*−29,997,055*	*−198,001,775*	*−123,046,836*
Totals, 1943	**19,428,160**	**183,565,443**	**126,557,333**	**1,817,829,691**	**2,609,506,516**

Year and Industry	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	$	$	$	$	$
1943					
Agriculture	139,603,000	249,573,000	177,747,000	52,174,000	Nil
Forestry	7,205,058	5,748,457	7,163,497	98,041,647	15,955
Fisheries	4,564,551	1,154,544	795,000	25,464,636	2,495
Trapping	2,250,623	1,985,649	3,502,585	1,576,025	3,496,001
Mining	8,973,959	23,507,079	41,767,222	54,105,996	3,957,528
Electric power	10,365,180	5,189,906	7,726,030	17,806,372	124,560
Construction	10,054,475	6,765,644	14,261,969	43,274,213	Nil
Custom and repair	8,509,000	6,739,000	7,742,000	12,486,000	"
Manufactures	99,146,670	37,895,459	65,796,813	341,699,478	237,709
Less duplication[1]	*−6,998,427*	*−8,641,554*	*−7,292,230*	*−82,677,203*	*−15,955*
Totals, 1943	**283,674,089**	**329,917,184**	**319,209,886**	**563,951,164**	**7,818,293**

For footnote, see end of table, p. 323.

4.—Gross and Net Values of Production, Classified for Each Province, by Industries, 1943 and 1944—concluded

NET PRODUCTION—concluded

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	$	$	$	$	$
1944					
Agriculture	11,416,000	23,386,000	29,860,000	210,007,000	373,356,000
Forestry	895,689	14,963,100	41,163,608	204,759,389	110,967,225
Fisheries	2,352,376	21,747,640	10,219,939	4,792,158	4,938,193
Trapping	3,135	354,453	222,279	4,324,521	5,336,213
Mining	Nil	25,208,621	3,631,871	145,964,861	161,819,719
Electric power	398,962	7,282,006	4,540,681	86,992,304	69,259,355
Construction	947,081	16,274,206	7,922,092	66,712,901	99,651,909
Custom and repair	754,000	5,996,000	3,673,000	50,071,000	64,224,000
Manufactures	3,570,835	93,376,638	62,258,478	1,350,519,134	1,930,043,913
Less duplication[1]	*−1,631,342*	*−17,173,718*	*−29,200,749*	*−223,410,931*	*−115,794,267*
Totals, 1944	**18,706,736**	**191,414,946**	**134,291,199**	**1,900,732,337**	**2,703,802,260**

Year and Industry	Manitoba	Saskat-chewan	Alberta	British Columbia	Yukon and N.W.T.
	$	$	$	$	$
1944					
Agriculture	146,684,000	429,714,000	251,338,000	57,445,000	Nil
Forestry	7,920,365	7,769,834	7,571,814	111,330,101	16,480
Fisheries	3,581,795	1,482,223	929,887	26,842,145	3,131
Trapping	2,688,995	2,776,031	3,312,657	2,305,912	2,664,577
Mining	10,288,654	18,362,133	42,672,706	43,986,511	2,087,392
Electric power	10,842,082	5,550,705	7,994,786	16,798,392	98,635
Construction	9,302,754	7,130,757	16,980,621	24,114,696	Nil
Custom and repair	9,678,000	7,851,000	8,881,000	14,046,000	"
Manufactures	120,339,926	40,833,333	77,415,753	337,137,197	280,803
Less duplication[1]	*−8,403,036*	*−8,061,751*	*−7,942,872*	*−86,767,756*	*−16,480*
Totals, 1944	**312,923,535**	**513,408,265**	**409,154,352**	**547,238,198**	**5,134,538**

[1] Includes duplication between agriculture and forestry, as well as duplication under manufactures (see p. 318).

CHAPTER XII.—AGRICULTURE

CONSPECTUS

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Agriculture, including stock raising and horticulture, is the most important single industry of the Canadian people, employing, according to the Census of 1941, 25·3* p.c. of the total gainfully occupied population and 30·6* p.c. of the gainfully occupied males. In addition, agriculture provides the raw materials for many Canadian manufactures, and its products in raw or manufactured form constitute a very large percentage of Canadian exports. For a statement of the occupied and the available agricultural lands in Canada, see pp. 32-33 of this volume.

An introductory outline of the historical background of Canadian agriculture is given at pp. 187-190 of the 1939 Year Book. The present Chapter treats of current governmental activities in an article prepared in the Department of Agriculture and includes comprehensive statistics of agriculture, collected and compiled by the Agricultural Branch of the Dominion Bureau of Statistics. These data cover farm income, values of agricultural production and farm capital, field crops, farm live stock and poultry, dairying, fruit, special crops, prices and miscellaneous statistics. World statistics of agriculture, formerly compiled from the publications of the International Institute of Agriculture, have not been available for recent editions of the Year Book because of war conditions though a United States Government estimate of world wheat production is given at pp. 382-383.

THE 1946-47 NATIONAL AGRICULTURAL PROGRAM AND POLICY†

Canadian agriculture began the year 1947 in a strong financial position. Farm debt had been reduced, cash income and net income increased and large quantities of new equipment had been acquired. Moreover, Parliament had enacted legislation that was designed to give farmers greater economic stability.

Production Programs

During the war years, production programs were formulated annually at conferences between Dominion and Provincial Departments of Agriculture, along with representatives of organized farmers. These conferences are being continued in the post-war period and plans were laid for 1947 production at a conference held in December, 1946, at which it was recommended that, in general, production for 1947 should be maintained at the level of the previous year. Special emphasis was placed on live stock and live-stock products, along with feed grains. Detailed recommendations are shown in the following statement:—

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* Including persons on Active Service normally employed in agriculture.

† Prepared under the direction of G. S. H. Barton, C.M.G., B.S.A., D.Sc.A., Deputy Minister of Agriculture, Ottawa.

Item	*Unit*	*1946 Production*	*1947 Recommendation*	*P.C. 1947 of 1946*
GRAIN AND FORAGE CROPS—				
Wheat	acre	25,900,000	24,000,000	93
Oats	"	13,162,700	14,310,200	109
Barley	"	6,730,500	8,000,000	119
Mixed grain	"	1,399,300	1,453,400	104
Husking corn	"	246,500	265,000	107
Rye	"	534,000	487,100	92
Summerfallow (Prairie Provinces)	"	18,906,000	18,811,100	99
Hay and clover	"	10,223,000	10,223,000	100
Alfalfa hay	"	1,540,400	1,540,400	100
MEAT ANIMALS (MARKETINGS)—				
Hogs	No.	4,350,000	5,175,000	119
Cattle	"	1,720,000	1,720,000	100
Calves	"	770,000	770,000	100
Sheep and lambs	"	1,275,000	1,100,000	92
DAIRY PRODUCTS—				
Milk (total)	lb.	16,937,000,000	17,888,000,000	106
Creamery butter	"	271,400,000	295,000,000	109
Cheddar cheese	"	143,500,000	183,000,000	128
Evaporated whole milk	"	192,200,000	201,600,000	105
Condensed whole milk	"	31,000,000	30,000,000	97
Whole milk powder	"	15,900,000	14,500,000	91
Skim milk powder	"	42,000,000	40,000,000	95
EGGS AND POULTRY—				
Eggs (total)	doz.	346,800,000	378,500,000	109
Poultry meat	lb.	315,000,000	315,000,000	100
FRUITS AND VEGETABLES—				
Apples	bu.	17,594,000	17,000,000	97
Pears, cherries	—	(slight increase for 1947)		
Peaches, plums, prunes	—	(slight decrease for 1947)		
Apricots	—	(decrease for 1947)		
Strawberries, raspberries	—	(slight increase for 1947)		
Grapes	—	(no change for 1947)		
Potatoes	acre	520,600	516,000	99
Canning corn	"	(slight increase for 1947)		
Canning beans	"	(no change for 1947)		
Canning tomatoes and peas	"	(decrease for 1947)		
OILSEED CROPS—				
Soybeans	acre	59,200	60,000	101
Rapeseed	"	26,500	26,500	100
Sunflower seed	"	20,712	28,000	135
Flaxseed	"	1,008,500	1,500,000	149
OTHER CROPS—				
Dried beans	acre	91,700	96,400	105
Dried peas	"	119,000	125,200	105
Sugar beets	"	67,500	95,000	141
Tobacco—				
Flue-cured	acre	95,938	102,150	106
Burley	"	14,000	15,000	107
Cigar leaf	"	4,200	5,000	119
Dark	"	2,000	2,000	100
Pipe	"	2,250	2,500	111
Fibre flax	"	15,840	21,000	133
SEED CROPS—				
Alfalfa seed	lb.	7,712,000	12,000,000	156
Alsike clover seed	"	4,097,000	7,000,000	171
Red clover seed	"	8,855,000	10,000,000	113
Sweet clover seed	"	8,423,000	8,000,000	95
Timothy seed	"	13,352,000	15,000,000	112
Brome grass seed	"	9,800,000	8,000,000	82
Crested wheat grass seed	"	1,110,000	2,000,000	180
Other grass seeds	"	1,088,000	1,850,000	170
MISCELLANEOUS—				
Maple products	gal.	2,144,000	2,750,000	128
Honey	lb.	22,590,000	40,000,000	156
Wool (shorn)	"	13,711,000	13,000,000	95

The main factors contributing to the present high level of farm output include improvements of mechanization; greater use of fertilizer and lime; more general use of improved varieties of crops—higher yielding, earlier maturing, insect- or disease-resistant varieties; and improved breeding and feeding of live stock and poultry.

Farm Income

Changes in the agricultural production pattern during the war years, changes in the nature and volume of domestic and export demand, and changes in farm prices, resulted in significant increases in cash and net farm income. Cash income from the sale of farm products since 1942 has been above the 1928 high of $1,100,000,000. Net income of farm operators from farming operations doubled between 1939 and 1945.

Post-War Subsidy and Price Policy

With the return to peacetime conditions, the policy of the Government is to relax its wartime controls. As production of civilian goods is resumed in sufficient volume to justify such action, price control is being abandoned. Already, a large number of products have been removed from ceiling regulations.

In keeping with this policy, subsidies, too, are being eliminated. The Department of Agriculture discontinued subsidies on milk for fluid use and for evaporated milk at the end of September, 1946, and on butter and cheese at the end of April, 1947. Subsidies on beans, canning crops, berries for jam and on the transportation of fertilizer have also been eliminated. As subsidies are removed, the Wartime Prices and Trade Board permits upward adjustments of the price ceiling. Although action is being taken to free the national economy of restrictions as rapidly as conditions permit, it is the declared policy of the Government to insure an orderly adjustment. New subsidies were announced on Mar. 17, 1947. Because of an increase in the prices of oats and barley and the continuation for the time being of the price ceilings on animal products, payments of 10 cents per bushel for oats and 25 cents per bushel for barley were authorized under the same conditions as the 25 cent payments on wheat purchased for feeding. These new subsidies were authorized to July 31, 1947.

With regard to price support—as distinct from price control represented by the imposition of ceilings—the situation is different. During the War, farmers accepted ceilings on their products at a time when most of these products would have brought higher prices. The Government in return gave assurances that prices would not be permitted to collapse when the War ended. Thus, in 1944, Parliament passed the Agricultural Prices Support Act, which provides for the support of agricultural prices during "the transition from war to peace". The duration of the period is not otherwise defined. The Act is administered by a Board comprised of three members. Under it, a support price may be established for any farm product except wheat, this product being dealt with under special legislation. In maintaining the price of any product, the Board may resort to purchase and sale activities, purchases to be made in the market and sales in any manner considered desirable by the Board. As an alternative to a purchase program, the Board may make deficiency or equalization payments equal to the difference between the established price and the average price at which a product sells in the market during a stated period, provided such prices are less than the established price.

In conducting its operations, the Board is to promote orderly agricultural adjustment and to endeavour to secure a fair relationship between the returns from agriculture and those from other occupations. A revolving fund of $200,000,000 is provided for the Board's activities.

At the present time (February, 1947), the authority of the Board is being used in two respects: one has to do with the marketing of potatoes and the other concerns the administration of certain contracts with the United Kingdom.

Potato Marketings.—In connection with potatoes of the 1946 crop, the Board has undertaken to support prices by: (1) the payment of stated prices for potatoes used chiefly for the manufacture of starch and the sale of such potatoes to processors at prices regularly paid for processing potatoes; and (2) the guarantee of a stated price for potatoes delivered to the Board after Apr. 1, 1947.

These undertakings are to apply only to potatoes produced in Prince Edward Island and New Brunswick, where substantial quantities of potatoes are produced for export. It is expected that the conduct of such a purchase program in these provinces will stabilize the price of potatoes in other parts of Canada. As a part of the prices support program, the Board has negotiated the sale to the United Kingdom of a minimum quantity of 2,500,000 bushels at prices that will net the grower at least 60 cents per bushel.

United Kingdom Contracts.—A second or complementary aspect of the Government's agricultural program relating to price support is represented in the extension and expansion of the contract system developed during the War. Existing contracts with the United Kingdom, which have been extended to cover periods up to four years, involve many of the major agricultural products as well as others of lesser importance, and are expected to provide a substantial measure of support to agricultural prices as a whole.

Such export contracts with the United Kingdom for farm products have played an important role in the Canadian agricultural economy from the commencement of war to the present time. They have been an incentive to greater production and, in that respect, have enabled Canada to contribute substantially to the needs of the United Kingdom since 1939.

The first contracts were for bacon and cheese. As supplies available to the United Kingdom from other sources were curtailed, first by the invasion of western European countries and then by the extension of the War to the Pacific, both the variety and size of the contracts increased. Prices, too, increased somewhat, although Britain's monetary position, the Canadian stabilization program and other factors, combined to hold price advances within reasonable limits. Where the contract price was insufficient to balance increased production costs or to provide the incentive necessary to ensure the desired production and delivery to the United Kingdom, a subsidy in one form or another was provided by Canada.

Forward commitments made by Canada in the form of contracts with the United Kingdom have been carried into the post-war years. These are as follows:—

Bacon.—The contract for the calendar year 1947 covers a minimum of $350,000,000 lb. of bacon and ham at a price of $25 per 100 lb. Grade A Wiltshire, f.a.s. Canadian seaboard, between Jan. 1-11; of $27 between Jan. 11 and Sept. 1; and $29 thereafter. A commitment covering 400,000,000 lb. has also been made for the calendar year 1948. Current bacon contracts call for 75 p.c. of shipments to be Wiltshire sides.

Beef.—The contract for the calendar year 1947 covers 120,000,000 lb. of carcass beef at a price of $21·10 per 100 lb., frozen weight, medium quality steer carcasses bone-in-basis, f.o.b. Canadian seaboard. The beef contract was extended to cover the year 1948. The United Kingdom offered to take up to 120,000,000 lb. during that year.

Other Meats.—Contracts with respect to lamb, mutton, offals and other meat products are being extended to 1947.

Cheese.—Current contracts for the export of cheese to the United Kingdom extend to Mar. 31, 1948. Quantities contracted for cover 125,000,000 lb. for each of the two years ending Mar. 31, 1947, and Mar. 31, 1948, the price being 20 cents per lb., first grade, f.o.b. factory shipping point for the year ended Mar. 31, 1947, and 25 cents per lb. for the contract year ending Mar. 31, 1948. The British Government has under discussion a further agreement to purchase 125,000,000 lb. of cheese in the year ending Mar. 31, 1949, at a price to be determined later.

Evaporated Milk.—Current contracts for shipments of evaporated milk to the United Kingdom also extend to Mar. 31, 1948. In each of the years ending Mar. 31, 1947, and Mar. 31, 1948, Canada is under contract to ship 600,000 48-lb. cases of British standard evaporated whole milk at a price of $4·95 per case, f.o.b. ship or R.R. car Montreal, Vancouver, or New Westminster.

Eggs.—A contract covering the years ending Jan. 31, 1948, and Jan. 31, 1949, calls for the shipment of 7,500 long tons of sugar-dried egg powder and 1,750,000 cases of shell eggs in each of these years.

Wheat.—Canada has entered into a contract covering a period of four years, commencing Aug. 1, 1946, for the delivery of specific quantities of wheat to the United Kingdom. Quantities covered by the contract are 160,000,000 bu. for each of the first two years, 1946-47 and 1947-48, and 140,000,000 bu. for each of the last two years of the agreement. Within the total quantities, provision is made for minimum amounts of flour to be included. The price, basis No. 1 Northern in store at Fort William, Port Arthur, Vancouver and Churchill, is $1·55 per bushel during each of the first two years; prices for each of the third and fourth years are to be negotiated, but in any event will not be less than $1·25 per bushel for the 1948-49 crop year, and $1 per bushel for the crop year 1949-50. The contract is subject to modification to conform with any international arrangement entered into subsequently and to which both Governments are party.

The Agricultural Products Act.—To enable the Dominion Government to fulfil its obligations under the food agreements and also to export food supplies to distressed countries, Parliament, in the spring of 1947, passed the Agricultural Products Act (Bill 25). Under this Act, the Minister of Agriculture may sell or export agricultural products and establish commodity boards vested with the necessary regulatory powers. The Act comes into force immediately at the expiration of the National Emergency Transitional Powers Act, 1945, and is to expire on Dec. 31, 1947, or such other date as may be fixed by Parliament.

Section 1.—Government in Relation to Agriculture

It is provided in Sect. 95 of the British North America Act that "in each province the legislature may make laws in relation to agriculture in the province"; it is also declared "that the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the legislature of a province relative to agriculture—shall have effect in and for the province as long and as far only as it is not repugnant to any Act of the Parliament of Canada". As a result of this provision, there exists at the present time a Department of Agriculture, with a Minister of Agriculture at its head, in the Dominion and in each of the nine provinces.

Subsection 1.—Canada's Relationship with FAO*

The first Session of the Conference of the Food and Agriculture Organization of the United Nations (FAO), which was held at Quebec city from Oct. 16 to Nov. 1, 1945, was attended by representatives of 37 countries which became Members of the Organization, and representatives of four observer countries (four other Member Nations were not represented at the Conference).

The permanent organization was created by the signing of the Constitution by the representatives of the countries attending; the Chairman and the Heads of Committees of the Interim Commission, which had been established at the Conference at Hot Springs, Virginia, in May-June 1943, presented reports of their work; a Director-General and an Executive Committee of 15 members were elected and reports were prepared on the organization and administration of FAO and on the policies and programs of work to be undertaken.

FAO is designed essentially to provide a focal point for the collection, analysis, interpretation and dissemination of information concerning all aspects of the production, distribution and consumption of food. It may also promote and recommend national or international action and, on request, may furnish technical assistance to nations that are themselves unable to carry out the recommendations of the Organization.

FAO has not, within itself, power to enforce the putting into effect of all the policies it may consider to be desirable as a means of eliminating freedom from want throughout the world. It is limited to advice and recommendation, but this restriction should not limit unduly its ability to give service. It simply means that the Member Nations must maintain the same spirit of co-operation and sincerity that prevailed at the first meeting of the Organization. No organization of this kind can achieve its goal without the wholehearted working together of the Member Nations. Once a staff of experts and specialists has been assembled, the first activity of FAO will, undoubtedly, be an appraisal of the world situation from both the production and the consumption side on the basis of data already available or secured by special surveys where necessary. The information so assembled will be made available to all Member Nations and will include not only basic statistics, but all scientific knowledge including that of biologists, technologists, nutritionists and scientists in other related fields.

Major interest at the second Conference of the Food and Agriculture Organization held at Copenhagen, Denmark, Sept. 2-13, 1946, centred in the proposals for a World Food Board submitted by the Organization's Director-General, Sir John Boyd Orr. The interest in the proposal was so great, it appeared for a time that other matters of major concern might not receive the attention they deserved. The discussion and the decision reached indicate that there was general agreement on the need for international machinery of some sort to deal with a long-range world food program. This agreement is reflected in the following recommendations adopted by the conference: (1) Developing and organizing production, distribution and utilization of the basic food to provide diets on a health standard for the peoples of all countries; (2) stabilizing agricultural prices at levels fair to producer and consumer alike.

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* This article is concerned mainly with the agricultural aspects of the work of FAO. For details of the first Conference, see pp. 206-211 of the 1946 Year Book.

Emergency Food Problems.—While the Committee dealing with the long-range problems represented in the proposals outlined above was at work, a second Committee concerned itself with the food shortage now evident in many countries. Despite some improvement in the world food situation, there was still a gap of 8,000,000 tons of bread grains between the needs of deficit countries and the supplies likely to be available for export. The Conference, acting on this Committee's recommendations, urged the continuation of the special measures agreed upon at the Washington meeting for control and economies in the use of basic foods.

The Conference at Work.—In conducting its work, the Conference divided into three Commissions comprising ten Committees. The Agricultural Committee outlined measures that may be taken to improve production in under-developed countries and to reorganize the agriculture of devastated countries. The Fisheries Committee dealt with the urgent need for rehabilitation of the fishing industry, recommending that fish and other marine products should be placed under a World Food Board if and when such a body is created.

The Economic Committee outlined the basic information that will be needed for the successful prosecution of the work of FAO. The provision of adequate statistics, including a world census of agriculture, was considered to be imperative. The report of a special mission that had been studying the agricultural and economic problems of Greece was brought before the Conference. This was the first of such efforts launched to increase food supplies and improve the welfare of a people.

Subsection 2.—The Dominion Government*

All the pre-war governmental activities in agriculture are being carried forward into the post-war period. As indicated in the article on pp. 324-328, many of the war-time activities are being maintained and some of the pre-war activities enlarged. This is especially true in the case of farm credit.

Farm Credit

The Dominion Government has set up several agencies to handle the matter of farm credit; the Farm Loan Board is empowered to make long-term loans to farmers† and the chartered banks, under the Farm Improvement Loans Act, to provide intermediate-and short-term credit.

The Canadian Farm Loan Board.‡—This Board was appointed by the Governor in Council under the provisions of the Canadian Farm Loan Act (c. 66, R.S.C. 1927, as amended by c. 46, Statutes of 1934 and c. 16, Statutes of 1935) and, as an agency of the Crown in the right of the Dominion, administers a system of long-term mortgage credit for farmers throughout Canada.

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* Except as otherwise indicated, this material was prepared under the direction of G. S. H. Barton, C.M.G., B.S.A., D.Sc. A., Deputy Minister of Agriculture, Ottawa.

† In addition to the credit supplied by the Canadian Farm Loan Board, and in order to meet the demand for long-term loans on easier terms of repayment and on a higher ratio in relation to farm value than that available from the Canadian Farm Loan Board and to facilitate refinancing indebtedness, the Province of Quebec has established its own farm credit scheme by the creation, in the autumn of 1936, of the Quebec Farm Credit Bureau, which commenced operations in March, 1937.

‡ Revised by W. A. Reeve, Acting Secretary, Canadian Farm Loan Board, Ottawa.

The Board is empowered to loan money to farmers for the payment of debts, for the purchase of farm equipment and live stock, to assist in the purchase of farm lands, for farm improvements or for any other purpose considered as improving the value of the land for agricultural purposes.

Loans may be granted on the security of first mortgages on farm lands actually operated by the borrower up to an amount not exceeding 50 p.c. of the appraised value of such farm lands but, in any event, not in excess of $5,000; such loans are repayable on an amortized plan of repayment over a period not exceeding 25 years.

By virtue of amendments to the Act enacted in 1934 and 1935, the Board is also empowered to make further advances to farmers who, having obtained a first-mortgage loan from the Board, require additional funds. The amount of such additional advance is not to exceed 50 p.c. of the amount of the first-mortgage loan, nor the aggregate of first- and second-mortgage loans to exceed two-thirds of the appraised value of the farm lands mortgaged as security for the loan, nor in any event an aggregate amount of $6,000. The interest rate on loans made on or after Apr. 2, 1945, is 4½ p.c. on first-mortgage loans and 5 p.c. on second-mortgage loans. The interest rate on loans made prior to Apr. 2, 1945, is 5 p.c. on first-mortgage and 6 p.c. on second-mortgage. Operations are now carried on in all provinces of Canada.

Particulars regarding the capital requirements of the Board, rates of interest charged and other details appear at p. 185 of the 1940 Year Book.

1.—Applications for Farm Loans Received, Loans Approved and Loans Disbursed, Years Ended Mar. 31, 1939-46

Note.—Figures for 1930-32 are given at p. 192 of the 1939 Year Book and for 1933-38 at p. 193 of the 1945 edition.

Year	Applications Received		Loans Approved					Loans Paid Out		
	No.	Amount	First Mortgage		Second Mortgage		Total Amount	First Mortgage	Second Mortgage	Total
			No.	Amount	No.	Amount				
		$		$		$	$	$	$	$
1939.....	4,723	9,688,427	2,267	4,076,800	560	269,250	4,346,050	4,041,395	297,448	4,338,843
1940.....	4,666	8,941,899	2,380	4,149,400	464	199,550	4,348,950	4,130,765	211,897	4,342,662
1941.....	2,806	5,769,950	1,459	2,655,050	228	104,350	2,759,400	2,619,109	108,398	2,727,507
1942.....	1,812	3,820,156	1,024	1,891,100	155	75,650	1,966,750	2,053,712	79,802	2,133,514
1943.....	1,055	2,277,830	601	1,156,150	135	59,300	1,215,450	1,260,033	60,223	1,320,256
1944.....	1,037	2,419,001	603	1,315,950	162	90,850	1,406,800	1,251,949	84,154	1,336,103
1945.....	1,306	3,293,559	728	1,623,000	176	100,700	1,723,700	1,561,174	100,235	1,661,409
1946.....	1,846	4,758,916	918	2,161,050	258	163,050	2,324,100	1,977,902	143,305	2,121,207

2.—Farm Loans Approved, with Details of Appraised Values of Security, by Provinces, Year Ended Mar. 31, 1946

Province	Loans Approved					Appraised Values of Security at Time of Loan		
	First Mortgage		Second Mortgage		Total Amount	Land	Buildings	Total
	No.	Amount	No.	Amount				
		$		$	$	$	$	$
Prince Edward Island.	24	38,900	5	1,700	40,600	57,324	31,121	88,445
Nova Scotia..........	27	56,450	2	1,300	57,750	95,862	52,603	148,465
New Brunswick.......	9	16,500	1	600	17,100	21,586	17,165	38,751
Quebec	107	250,400	34	16,200	266,600	343,839	229,876	573,715
Ontario..............	153	394,150	42	24,350	418,500	541,610	321,118	862,728
Manitoba............	202	501,350	76	56,900	558,250	1,116,591	355,590	1,472,181
Saskatchewan	149	362,500	62	37,650	400,150	790,465	182,123	972,588
Alberta..............	188	400,600	28	18,050	418,650	857,381	238,454	1,095,835
British Columbia.....	59	140,200	8	6,300	146,500	209,569	123,733	333,302
Totals............	**918**	**2,161,050**	**258**	**163,050**	**2,324,100**	**4,034,227**	**1,551,783**	**5,586,010**

Farm Improvement Loans Act.*—The Farm Improvement Loans Act, 1944 (c. 41, Geo. VI, 1944), is designed to provide short-term and intermediate-term credit to farmers. Under its provisions, the Dominion Government authorizes the chartered banks of Canada to make loans over a three-year period and up to $250,000,000 under a 10 p.c. Government guarantee against loss. The maximum of an individual loan is $3,000, the interest rate is 5 p.c. simple interest, and the repayment periods are from one to ten years, depending upon the amount borrowed and the purpose for which the loan is obtained. The Act restricts loans to farmers.

There are two broad aims behind this legislation, the first of which is the improvement and development of farms. Loans will be made to enable a farmer to equip his farm with modern, labour-saving equipment, more and better live stock, and to make such other improvements necessary to maximum farm production. The second is the improvement of living conditions on farms. These loans will enable the farmer to provide his home with electrification, refrigeration, heating systems, water systems, and all those things that make for comfort and convenience in living and that do so much to eliminate the drudgery of the farm housewife.

There are seven classes of Farm Improvement Loans: (1) Purchase of agricultural implements; (2) purchase of live stock; (3) purchase of agricultural equipment or installation of a farm electrical system; (4) alteration or improvement of a farm electrical system; (5) fencing or drainage; (6) construction, repair or alteration of, or addition to, farm buildings; and (7) general improvement or development of the farm.

Despite the shortage of material, supplies and labour to Dec. 31, 1946, a total of 13,030 loans have been made under this Act for an amount of $9,808,566.

Research and Experimentation

In its efforts to aid the farmer in the solution of his problems, the Department of Agriculture conducts, on a broad scale, scientific research and experimentation on the control of pests and diseases, the nutritional requirements of plants and animals, the micro-biology of soils and foods, the breeding and testing of new varieties of plants and animals, investigations of crop production and cultural methods and many other matters. The two main divisions of the Department that carry on such work are Science Service and Experimental Farms System.

Science Service.—The work of Science Service is directed toward the solution of practical problems of agriculture through the application of scientific investigation. The work is carried on in co-operation with other agencies within the Department, not only at the central laboratories at Ottawa but at branch laboratories all across the country.

Throughout the war period, much of the research work was concentrated on pressing problems connected with the need for greater food output. Now, attention is being given to other matters of importance to the future welfare of agriculture in Canada.

In the field of animal pathology, special study is being given to such cattle disorders as contagious abortion or Bang's disease and to hæmaturia or redwater disease. Swine fever and the causes of losses in young pigs are being investigated, while with poultry major attention is focussed on pullorum disease and on the control of coccidiosis.

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* Prepared by D. M. McRae, Supervisor, Farm Improvement Loans, Department of Finance, Ottawa

Dairy research has for one of its major objectives the development of methods of measuring the quality of raw milk. The resazurin test developed in the Departmental laboratories has been accepted as an official method for milk analysis and further study is being given to the use of this test. Projects have been set up to study and control defects of flavour and texture in the making of cheddar cheese and also for determining setting time in cheesemaking. Control of quality in butter and of the development of surface discoloration of print butter are being investigated.

Studies in food micro-biology are aimed at determining the factors that affect quality in dried-egg products as well as the preservation of fruits and vegetables by freezing and the causes of spoilage in canned vegetables.

Fundamental studies of soil organisms are being conducted as a basis for application to practical problems. Research is also being conducted on the inoculation of seed and soil by nitrogen-fixing bacteria; on micro-biological methods of evaluating soil fertility; and on soil micro-organisms in relation to soil-borne plant diseases and plant deficiencies.

Weeds constitute one of the more important problems with which the farmer must contend. In the botanical laboratories, research is in progress on the occurrence and distribution of weeds throughout Canada. Life histories of weeds are studied together with methods of control of certain species. Physiological studies on the effects of herbicides are being carried on.

A wide range of plant-disease problems is under investigation at the pathological laboratories across the country. Attention is being given to the destructive diseases that affect the native forest species and to the pathological effects of silvicultural treatment of forest stands. Investigations are being made into the destruction of timber caused by wood-destroying fungus species.

In an effort to reduce the losses from seed-borne diseases of crop plants, seed-testing techniques are being investigated with a view to determining the presence of pathogenic organisms in or on the seed. Various commercial disinfectants and seed-treating machines are under test to determine their value in the control of seed-borne diseases.

Diseases of cereal and forage crops are under constant study with the object of evolving effective measures and developing resistant varieties which will produce satisfactory crops in the presence of disease organisms. Similar investigations are under way with horticultural crops. Here the emphasis is on crop protection and disease control rather than on the development of resistance. In the case of certain crops, however, notably potatoes, breeding for disease resistance is being carried on co-operatively with certain experimental farms.

In the chemical laboratories of Science Service, research projects are in progress on animal nutrition, food investigations, vitamin study, soil fertility and plant chemistry. Factors affecting the digestibility of feeds and an evaluation of feeding stuffs on the basis of digestibility trials with different classes of farm animals will provide useful information for the live-stock feeder. Vitamin research includes studies of the technique of biological assay, the interrelationship between Vitamin D and certain minerals, methods of determining the content of Vitamin D and the mode of action of Vitamin A. Of interest also to the stockman is the work in progress on the tattooing of live stock for identification purposes.

Soil fertility investigations include a study of the influence of crop rotations on the nitrogen and organic-matter content of prairie soils, the effects of rotations in maintaining soil fertility in the production of canning factory crops, the effects of ground limestone at varying rates of application on soil reaction and the development of potato scab, studies of the minor element content of soils and of the occurrence of brown heart in turnips. Special investigations are in progress on phosphate fixation, reclamation of saline soils resulting from flooding by sea water and on the fertilizing value of industrial by-products.

Research in plant chemistry includes studies on carotene, the effects of storage on oil-bearing seeds, factors affecting the quality of silage, methods of curing and storing hay, leaf symptoms of mineral deficiency in orchard crops, investigational work on Vitamin C content of fruit and vegetable products and the preservation of fruits and vegetables by freezing.

Investigations under way in the field of entomology embrace insects affecting man and animals, forests, fields, gardens, orchards, factories, and materials and products in transit or in storage. Specific projects relate to the collection and identification of insects; studies of the life histories, habits, and distribution of harmful and beneficial forms; appraisal of insect damage; means of salvaging injured products, of protecting susceptible crops and materials, and of destroying the pests themselves; and the design and performance of mechanical devices required in the application of control measures. The methods of control under study include management practices, cultural measures, chemicals, and the production and dissemination of parasites and diseases that attack noxious insects.

Studies on insects attacking man and animals include a wide range of household pests, fleas, and such enemies of cattle as warbles, ticks, and lice; the preparation and testing of repellents for protection from biting flies; and control of mosquitoes and houseflies over extensive areas. Much attention is being given to the use of the newer insecticides and practical methods for their application.

Forest-insect control activities embrace the nation-wide forest insects survey, begun in 1936, which has been intensified in recent years in an effort to devise a reliable means of forecasting impending outbreaks and as a guide to timing the cutting in advance of threatened destruction in Canada's vast forests. Biological and control studies have also been expanded, particular attention being given to such widespread destructive pests as the spruce budworm and sawflies attacking conifers, to the hemlock looper and bark beetles in British Columbia, and to the bronze birch borer in the Maritimes. Control investigations centre around long-term forest-management projects, the use of parasites and diseases, and the exploration of the possibilities of chemical control.

Field-crop and garden insect investigations include such important pests as grasshoppers, wheat-stem sawfly, wireworms, cutworms, white grubs, European corn borer, root maggots, potato aphids, and nematodes. The abundance and distribution of these pests are measured annually by extensive field surveys which provide a basis for planning large-scale control campaigns. Insecticides are widely employed in investigations upon the control of garden insects and even for certain pests of field crops, but for most of the latter cultural contrc has been highly developed.

Of the orchard pests, codling moth, European red mite, eye-spotted budmoth, apple maggot, oriental fruit moth, oystershell and San Jose scales, and pear psylla are the subjects of major study. Emphasis is being placed on the use of recently developed insecticides; on the use of sprays combining fungicides and insecticides, and on the effect of spray programs upon the whole biotic structure of the orchard. Insect control by parasites and diseases and by orchard management is receiving increased attention.

Research on stored products insects embraces such pests as the rust-red grain beetle, the Indian meal moth, and mites; warehouse infestations by spider beetles; and pests of special products, such as beetles attacking powdered milk and eggs. Practical controls have been developed utilizing fumigants, abrasives, and mechanical methods; and prevention of infestation has been secured through proper storage construction and plant management.

Special consideration is given at the Dominion Parasite Laboratory, Belleville, Ont., to the importation and production of parasites for distribution in forests, fields, gardens, orchards, and greenhouses. At present, parasites are employed in Canada against about thirty important insect pests.

Activities designed to prevent the introduction into Canada of foreign pests are centred in the Plant Protection Division of Science Service. Fumigation with various lethal materials under varying conditions is being investigated as a means of destroying insect life in imported plants and plant materials. Effects of fumigants on suitability of products for human consumption or for seed are also under study.

Experimental Farms Service.—For over sixty years, since 1886, the Experimental Farms Service of the Dominion Department of Agriculture has been engaged in experimental and investigational work directed to the progressive improvement of practical agriculture in Canada. The facilities of this Service include (at the beginning of 1947) 36 experimental farms, stations and large substations; 211 smaller substations and illustration stations, and 8 branch laboratories, distributed throughout the agricultural regions of Canada. The headquarters of this system are at the Central Experimental Farm, Ottawa, where are located the administrative offices of the Director, and the offices and laboratories of the technical Divisions through which the work of all Experimental Farm units is supervised and co-ordinated. The field of agricultural enquiry covered by each of the ten technical Divisions is indicated by their titles, as follows: Animal Husbandry, Bees, Cereal Crops, Economic Plant Fibre (flax, etc.), Field Husbandry (soil management and engineering), Forage Crops, Horticulture, Illustration Stations, Poultry and Tobacco. Work on each of the Branch Farms is supervised by a resident Superintendent, who is responsible to the Director and who directs the various phases of experimental work at his unit in consultation with the relevant Division at Ottawa.

The fundamental function of the Experimental Farms Service is to enable Canadian farmers to make direct application of the results of scientific research. By its constitution, this Service is a repository for information on scientific farming, continually expanding, and kept alive by constant application under actual farming conditions. This applies to the multitude of details of land management, crop growing, live-stock production, and the use of machinery and equipment which together constitute the art of agriculture. During the present post-war period, the Experimental Farms are concerned with the maintenance of their regular services to agriculture, but with special attention to the greater conservation and better utilization of the agricultural resources of Canada.

Of primary importance, though of somewhat belated recognition, is the problem of soil conservation. Considered broadly, soil conservation involves the maintenance of fertility as well as the control of soil erosion. Over a long period of years, Experimental Farms throughout Canada have conducted experiments with manures, fertilizers, crop rotations and other means of maintaining or increasing soil fertility. This work has demonstrated that the decline in productivity which has become increasingly evident on many Canadian farm lands could be avoided and is remediable. In recent years, increasing attention has been given to problems of soil erosion. Particularly in the Prairie Provinces, under the Prairie Farm Rehabilitation Act (P.F.R.A.) program much experimental work has been done on the control of wind erosion or soil drifting. As a result, measures have been developed which, if generally applied, should prevent any recurrence of the dust storms of the 1930's. On all Branch Farms on the prairies, as well as on smaller Substations, soil drifting is at all times a subject of study. Mention should be made here of the Dominion Soil Research Laboratory, established in 1936 at the Swift Current, Sask., Experimental Station, where fundamental research on soil erosion problems is in progress. To a lesser extent, but with growing emphasis as a post-war line of investigation, water erosion of soils is being investigated. Experiments in terracing, dyking and contour cropping have been started on several Farms and Substations, and on the Central Farm an elaborate erosion research project is now in operation to determine the effects of erosion, as well as practical control measures. Expansion of this work to other points in Canada is contemplated. Altogether, the soil-conservation program of the Experimental Farms, embracing problems of fertility, erosion, drainage, irrigation, etc., should have an increasingly important bearing on post-war agricultural developments in Canada.

Basic to soil conservation, and indeed to all agricultural activities, is an inventory of the Dominion's soil resources as regards distribution, classification and properties. This is the function of the Soil Survey, in which the Experimental Farms Service is taking an increasing part. It should be noted that the principles and methods of soil surveying, as applicable to Canada, were originally developed by agricultural colleges in the three Prairie Provinces and Ontario. Subsequent participation by the Experimental Farms has been largely in support of provincial programs, with Dominion and provincial personnel working in close co-operation in the several provinces. The purpose, already well advanced, is to secure a complete inventory of all agricultural soil resources in Canada within a short period of years. To this end, the soil-survey staff of the Experimental Farms has been considerably augmented since the end of the War. In this connection, mention should also be made of vegetation surveys, hitherto developed in the Prairie Provinces for the better management of rangeland, but now being extended in the interests of better land utilization.

Plant breeding for the creation of high-quality crop varieties adapted to different conditions of soil and climate, and with resistance to drought, disease and insect pests, is a major function of Experimental Farms work. One result of this work has been the expansion of areas in which profitable crops can be grown, notably with cereals in the Northwest and with shelled corn and soybeans in Ontario. The creation of disease-resistant plants such as rust-resistant wheat, and of varieties resistant to insect attack, as in the case of the new sawfly-resistant Rescue wheat, are additional examples. Further development of the whole plant-breeding program of the Experimental Farms, essential to improved land utilization, is being vigorously prosecuted.

Expansion is also taking place in the field of plant processing. During the War, the processing laboratories of the Experimental Farms at Kentville, N.S., and Summerland, B.C., were able to make appreciable contributions to the conservation of perishable plant products through improvements in the dehydration of fruits and vegetables, quick-freezing practices, and the better storage and packaging of fresh fruits and juices. More recently a fruit and vegetable processing laboratory and sorghum syrup plant has been established at Morden, Man., for work in the Prairie Provinces; while a similar laboratory is projected at Lethbridge, Alta., to serve the processing needs of growers in the irrigated districts of Alberta. At Portage la Prairie, Man., a new fibre-flax pilot mill, for research in processing prairie flax products, is in operation. More attractive and nutritious products, better seasonal marketing, and the use of by-products and material formerly wasted, are objectives of this processing program.

Nutritional research, together with further improvements in breeding, are developing major post-war phases of Experimental Farms work in animal production. In particular, studies on the relationship between nutrition and animal health are being carried on with increasing intensity. In the breeding program, the development of high-class Yorkshire bacon-type hogs for the important United Kingdom market and of improved sheep breeds for western ranches, are isolated examples of the work in progress. Both in the nutrition and breeding of live stock and poultry, the Branch Farms play an important role, some serving mainly as nutritional centres, others as breeding centres, but practically all conducting experimental work of importance in their several districts.

Entering all phases of agriculture, the engineering services of the Experimental Farms, with laboratories and workshops at Ottawa and Swift Current, Sask., reflect in their expanding operations the trend to greater and more efficient mechanization of the post-war period. In general, these engineering activities are directed to the design of new labour-saving devices, the improvement of existing equipment, and the better co-ordination of mechanical outfits and farm production. One interesting development has been in the experimental repair and new construction of dykes and aboiteaux in the Bay of Fundy area, conducted by the Experimental Farm at Nappan, N.S.

Geographically, the Experimental Farms Service has, throughout the years, expanded with the growth of settlement. The most recent move has been to the Northwest Territories and Yukon, with the establishment of Substations at Fort Simpson, N.W.T., and Whitehorse, Yukon. While these measures are relatively small in themselves, and definitely not in the interests of increased settlement, they are mentioned here in view of the growing interest in and importance of the Canadian northland.

Subsection 3.—Provincial Departments of Agriculture

Each of the nine provinces, under Sect. 95 of the British North America Act, has a Department of Agriculture, which directs its general agricultural policies, administers the provincial legislation affecting agriculture, and provides extensive services to assist the rural people in its respective area. The work of these Departments is outlined at pp. 213-218 of the 1946 Year Book.

Subsection 4.—Provincial Agricultural Colleges and Schools

A treatment of this subject appears at pp. 203-213 of the 1943-44 Year Book.

Section 2.—Statistics of Agriculture*

Crop-Reporting Service.—Through the voluntary crop-reporting service of the Dominion Government, accurate, timely and independent reports on crop conditions throughout the Dominion are published.

Census Statistics.—In addition to the statistics collected annually, which are the subject of this Section, valuable information is published following each Decennial Census of the Dominion and each Quinquennial Census of the Prairie Provinces. The more important data at present available from the 1941 Census, are given at pp. 250-254 of the 1946 Year Book.

Subsection 1.—Farm Cash Income

Canadian farmers received a cash income (exclusive of supplementary payments) of $1,742,300,000 from the sale of farm products in 1946 as compared with receipts totalling $1,697,700,000 in 1945. The 1946 income was $86,200,000 less than that received in the record year 1944, when receipts totalled $1,828,500,000.

Cash receipts from sales of grains, seeds and hay increased $15,900,000 in 1946, as a result of payments on wheat participation certificates for preceding crop years amounting to $33,300,000. Gains were also recorded for 1946 in receipts from fruits, vegetables and special crops. However, these increases were offset to a considerable extent by a decline in cash income from the sale of live stock due to a much lower volume of hog marketings. Cash income from the sale of farm products was higher in 1946 in all provinces except New Brunswick, Saskatchewan and Alberta. The decline in New Brunswick was accounted for in large part by lower income from potatoes and live stock; in Saskatchewan and Alberta lower marketings of grain and live stock were responsible for the decreases.

The estimates of cash income are based on reports of marketings and prices received by farmers for principal farm products and include the amounts paid on account of wheat participation certificates, the oats and barley equalization payments and those Dominion and Provincial Government Payments that farmers receive as subsidies to prices. Payments made under the Wheat Acreage Reduction Act, the Prairies Farm Assistance Act and the Prairie Farm Income Act are not included with cash income but are included in the total in the year in which payment is made under the heading "Supplementary Payments".

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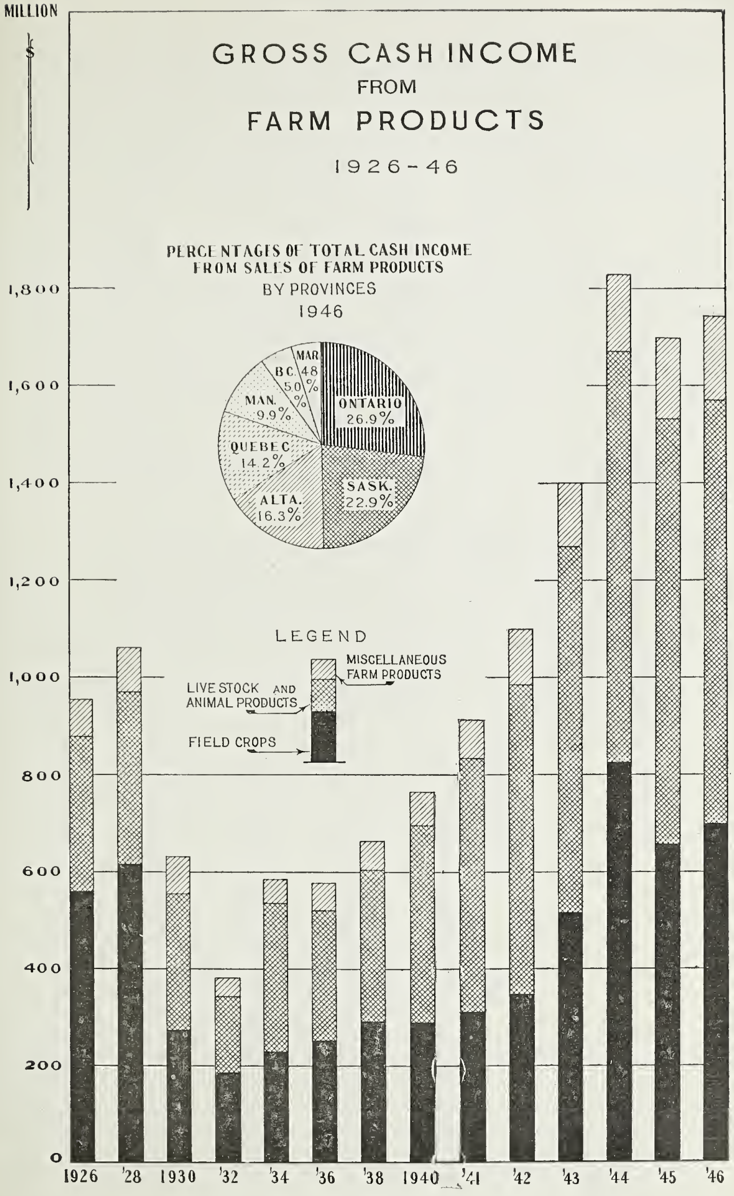
* Revised in the Agricultural Branch, Dominion Bureau of Statistics. This Branch collects and publishes both primary and secondary statistics of agriculture, including statistics of the production and distribution of agricultural commodities. The primary statistics relate mainly to the reporting of crop conditions, crop and live-stock estimates, values of farm lands, wages of farm labour and monthly and annual prices received by farmers for their products. The secondary statistics relate to the marketing of grain and live stock, dairying, milling, and sugar industries and cold-storage holdings.


GROSS CASH INCOME
FROM
FARM PRODUCTS
1926-46
PERCENTAGES OF TOTAL CASH INCOME FROM SALES OF FARM PRODUCTS
BY PROVINCES
1946
ONTARIO 26.9%
SASK. 22.9%
ALTA. 16.3%
QUEBEC 14.2%
MAN. 9.9%
B.C. 5.0%
MAR. 4.8%
LEGEND
MISCELLANEOUS FARM PRODUCTS
LIVE STOCK AND ANIMAL PRODUCTS
FIELD CROPS
MILLION $
1,800
1,600
1,400
1,200
1,000
800
600
400
200
0
1926
'28
1930
'32
'34
'36
'38
1940
'41
'42
'43
'44
'45
'46

3.—Cash Income from the Sale of Farm Products, by Sources, 1945 and 1946

Item	1945	1946[1]	Item	1945	1946[1]
	$'000	$'000		$'000	$'000
Grains, Seeds and Hay—					
Wheat	326,627	343,204	Dairy products	269,874	285,604
Wheat Participation Certificates	10,372	33,307	Fruits	33,193	47,509
Oats	85,871	58,551			
Barley	48,479	44,641	Other Principal Farm Products—		
Rye	5,900	10,917			
Flax	13,025	15,343	Eggs	86,323	85,936
Corn	4,100	3,205	Wool	3,686	3,458
Clover and grass seed	8,962	10,049	Honey	5,662	4,564
Hay and clover	5,578	5,643	Maple products	2,871	3,163
Totals, Grains, Seeds and Hay	508,914	524,860	Totals, Other Principal Farm Products	98,542	97,121
Vegetables and Other Field Crops—					
Potatoes	38,233	41,862			
Vegetables	37,830	42,028	Miscellaneous farm products	27,416	28,716
Sugar beets	6,681	7,540			
Tobacco	30,910	34,842	Forest products sold off farms	40,091	46,404
Fibre flax	2,161	1,226	Fur farming	11,368	10,459
Totals, Vegetables and Other Field Crops	115,815	127,498	**Totals, Cash Income from Farm Products**	**1,697,698**	**1,742,341**
Live Stock—					
Cattle and calves	269,151	275,511			
Sheep and lambs	15,007	14,840			
Hogs	235,838	204,927			
Horses	6,394	8,084			
Poultry	66,095	70,808	Supplementary payments[2]	6,439	16,970
Totals, Live Stock	592,485	574,170	**Totals, Cash Income**	**1,704,137**	**1,759,311**

[1] Subject to revision. [2] Includes payments made under the Wheat Acreage Reduction Act, the Prairie Farm Assistance Act, and the Prairie Farm Income Order; other Government subsidies have been included in cash income from individual commodities.

4.—Cash Income from the Sale of Farm Products, by Provinces, for Specified Years, 1926-46

Year	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1926	8,457	13,700	15,694	96,147	254,608	89,794	291,177	162,504	25,477	957,558
1930	7,323	16,241	12,863	82,673	216,622	48,312	122,393	95,419	30,266	632,112
1935	3,831	13,861	8,851	64,593	155,089	36,128	108,103	98,912	21,932	511,300
1940	7,237	17,170	15,523	120,681	233,415	64,978	150,854	127,192	28,795	765,845
1941	8,551	20,063	19,448	144,879	286,487	81,648	161,955	154,408	36,600	914,039
1942	11,171	21,577	25,178	174,306	355,976	103,422	195,825	168,887	44,600	1,100,942
1943	14,060	25,692	31,373	200,310	385,946	146,112	327,634	220,447	57,987	1,409,561
1944	13,740	28,017	33,134	222,312	404,539	177,538	555,248	343,500	68,136	1,846,164
1945	16,469	26,745	35,295	232,720	452,274	154,709	417,959	293,018	74,948	1,704,137
1946[1]	16,776	32,212	34,667	248,180	469,353	171,534	411.327	289,070	86,192	1,759,311

[1] Subject to revision.

Subsection 2.—Value of Agricultural Production and of Farm Capital

Publication of the series formerly known as "Gross and Net Values of Agricultural Production" has been discontinued. These series contained duplications and, as a result, were not comparable with value of production estimates for other industries. Work is now under way on new series which will replace those previously published.

Value of Farm Capital.—The items included in the term "farm capital" as used in Table **5** are: lands and buildings; implements and machinery, including motor-trucks and automobiles; and live stock, including poultry and animals on fur farms. The value of lands and buildings for intercensal years are based on the value of occupied farm lands reported annually by crop correspondents; annual values of farm implements and machinery are estimated on the basis of sales reported each year.

5.—Current Value of Farm Capital, by Provinces, 1944 and 1945

Province	1944[1]				1945			
	Lands and Buildings	Implements and Machinery	Live Stock[2]	Total	Lands and Buildings	Implements and Machinery	Live Stock[2]	Total
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
P.E. Island	41,440	5,697	12,790	59,927	43,471	5,791	13,562	62,824
Nova Scotia	87,027	10,810	23,212	121,049	87,027	11,005	23,369	121,401
New Brunswick	92,786	10,667	25,405	128,858	97,425	10,855	24,479	132,759
Quebec	630,567	83,614	227,005	941,186	619,848	84,073	221,561	925,482
Ontario	1,078,644	160,373	336,643	1,575,660	1,060,307	165,130	362,663	1,588,100
Manitoba	270,239	58,577	105,923	434,739	283,751	60,440	100,250	444,441
Saskatchewan	797,953	135,919	209,886	1,143,758	845,032	139,561	192,878	1,177,471
Alberta	582,924	110,646	199,652	893,222	613,819	111,952	187,446	913,217
British Columbia	121,838	15,755	38,899	176,492	127,564	16,207	40,100	183,871
Totals	**3,703,418**	**592,058**	**1,179,415**	**5,474,891**	**3,778,244**	**605,014**	**1,166,308**	**5,549,566**

[1] Revised since the publication of the 1946 Year Book. [2] Includes poultry and fur farms.

Average Values of Farm Lands.—Land values as reported by crop correspondents represent the average value per acre of all occupied land and include a considerable percentage of unimproved land. Consequently, these values are well below current market prices for improved farm land.

The values of farm lands show considerable increases since 1940, but present values are substantially below those recorded prior to the collapse in land values in 1929 and no serious inflation of land values similar to that which followed the First World War is as yet in evidence. A decline from the high values of that time occurred prior to 1926 and a second sharp decline followed 1929, values per acre reaching their lowest point in 1934 at $23 per acre. For 1946, the average value indicated was $32 per acre.

6.—Average Values per Acre of Occupied Farm Lands, for Specified Years, 1910-46

Province	1910	1920	1927	1929	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
P.E.I	31	49	41	43	31	32	34	31	31	34	36	35	32	34	37	37	41	43	42
N.S...........	25	43	37	36	28	26	27	31	35	32	29	33	28	31	33	35	41	41	42
N.B...........	19	35	30	35	24	24	24	25	28	26	27	29	24	25	30	33	40	40	39
Que...........	43	70	57	55	37	36	34	41	38	40	40	44	44	50	55	58	58	57	59
Ont...........	48	70	65	60	38	38	41	42	44	46	45	46	46	45	48	56	58	57	59
Man...........	29	39	27	26	16	16	17	17	16	17	16	17	16	17	18	19	20	21	25
Sask...........	22	32	26	25	16	16	16	17	15	15	15	15	15	14	15	15	17	18	19
Alta...........	24	32	26	28	17	16	16	16	16	16	15	16	16	16	17	18	19	20	21
B.C...........	74	175	89	90	65	63	60	58	60	58	60	60	58	60	62	62	64	67	70
Canada.......	**33**	**48**	**38**	**37**	**24**	**24**	**23**	**24**	**24**	**24**	**24**	**25**	**24**	**25**	**26**	**28**	**30**	**30**	**32**

Subsection 3.—Acreages, Yields and Values of Field Crops

The fourth annual Dominion-Provincial Agricultural Conference met at Ottawa in December, 1945, to draft proposals for the agricultural production program for the coming year. One of the major problems faced by this Conference was the distribution of Canada's agricultural land resources in such a way as to provide a maximum production of the major grain crops needed for human food and live-stock feeding. After considering all aspects of the problems involved, the Conference recommended that the wheat acreage for 1946 be maintained at the 1945 level of 23,414,000 acres, while that of oats be decreased 1 p.c. and that of barley increased 9 p.c. when compared with 1945 acreages of 14,393,000 and 7,350,000, respectively. At the same time, it was urged that summerfallow acreage be maintained at 19,397,000 acres, the same as in 1945. However, the price relationships existing between the various grains at seeding time appeared to be the deciding factor, and the Conference proposals on these items met resistance, with the 1946 wheat acreage rising to 25,900,000 acres, the increase being obtained for the most part at the expense of oats, barley and summerfallow. The acreages of each of the two coarse grains, oats and barley, declined by approximately 9 p.c., while that of summerfallow was down by 5 p.c.

A week of extremely hot, dry weather in the Prairie Provinces during the latter part of July and the first part of August, together with a July frost, caused some deterioration in what might otherwise have been a near-record wheat crop. As a result, wheat production for all Canada amounted to 420,725,000 bu., which, despite the set-back, was still above average and some 102,213,000 bu. in excess of the 1945 production.

The smaller 1946 acreages of oats and barley practically offset the gain from increased yields of these crops and total feed-grain production was only a little larger than in 1945. Rye production was up by 25 p.c. while flaxseed was down slightly. The gross farm value of all the major field crops produced on 63,341,000 acres in 1946 amounted to $1,247,624,000 as compared with a gross farm value of production of $1,151,285,000 from 62,828,000 acres seeded to the same crops in 1945.

7.—Acreages and Values of Field Crops, by Provinces, 1940-46

Note.—Some of the figures in this table, particularly the values, have been revised since the publication of the 1946 Year Book.

Province	1940	1941	1942	1943	1944	1945	1946
	ACREAGES						
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island........	505,500	465,900	475,600	472,000	467,000	467,100	474,900
Nova Scotia................	556,700	509,900	519,600	536,200	555,100	560,400	547,000
New Brunswick..............	908,000	871,200	932,700	984,500	992,700	983,900	954,600
Quebec......................	6,088,100	6,380,200	6,599,900	6,750,700	6,802,900	6,758,500	6,505,200
Ontario......................	9,158,700	9,094,900	9,220,000	7,958,000	8,535,000	8,388,000	8,213,000
Manitoba....................	6,999,900	6,413,100	6,708,000	6,804,100	7,284,300	7,099,800	7,642,500
Saskatchewan...............	21,919,700	19,650,000	22,182,300	22,450,200	23,475,700	23,471,600	23,822,900
Alberta......................	14,238,800	12,885,600	13,625,800	13,214,800	13,991,250	14,473,600	14,532,200
British Columbia............	520,500	517,600	545,300	534,900	568,400	578,400	589,800
Totals, Acreages.......	**60,895,900**	**56,788,400**	**60,809,200**	**59,705,400**	**62,672,350**	**62,781,300**	**63,282,100**
	VALUES						
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Prince Edward Island........	8,874	11,098	14,406	15,821	18,248	18,975	15,344
Nova Scotia................	13,778	15,343	16,473	18,622	20,598	21,619	19,017
New Brunswick..............	21,336	26,806	30,320	43,795	37,978	37,251	28,006
Quebec......................	95,071	131,407	144,796	148,317	162,455	158,188	134,875
Ontario......................	149,479	181,479	219,910	181,434	219,888	231,076	232,908
Manitoba....................	64,387	76,442	121,365	149,435	156,521	134,852	163,350
Saskatchewan...............	189,413	136,162	403,024	373,331	485,016	326,635	344,048
Alberta......................	147,414	111,634	253,197	235,188	251,237	196,403	279,628
British Columbia............	14,547	14,390	18,451	23,286	23,124	24,686	28,078
Totals, Values.........	**704,299**	**704,761**	**1,221,942**	**1,189,229**	**1,375,065**	**1,149,685**	**1,245,254**

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada

Note.—Comparative figures for the Dominion as a whole for the years 1908-28 are given in the 1929 Canada Year Book, pp. 230-232; for 1929-38 in the 1939 Canada Year Book, pp. 203-205; for 1939-41 in the 1943-44 Canada Year Book, p. 217. For certain figures for earlier years of acreage, production and value, see Statistical Summary of the Progress of Canada at the beginning of this volume. For the majority of crops, the long-time average covers the years 1908-40. Figures for 1946 are preliminary and therefore subject to revision.

SUMMARY, SHOWING YIELDS AND PRICES, 1942-46, WITH LONG-TIME AVERAGES

Crop and Year	Area	Yield per Acre	Production	Average Price	Total Value	Crop and Year	Area	Yield per Acre	Production	Average Price	Total Value
	'000 acres	bu.	'000 bu.	$ per bu.	$'000		'000 acres	bu.	'000 bu.	$ per bu.	$'000
Wheat—						Rye—					
Long-time average	19,904	15·6	310,021	0·87	269,290	Long-time average	694	13·7	9,503	0·67	6,389
1942......	21,587	25·8	556,684[1]	0·77[1]	428,002[1]	1942......	1,338	18·5	24,742	0·48	11,760
1943......	16,850	16·9	284,460	1·13[1]	320,895[1]	1943......	576	12·4	7,143	0·96	6,855
1944......	23,284	17·9	416,635	1·21[1]	504,193[1]	1944......	648	13·2	8,526	0·96	8,170
1945......	23,414	13·6	318,512	1·15	367,467	1945......	488	12·1	5,888	1·47	8,680
1946......	25,900	16·2	420,725	1·14	480,215	1946......	534	13·9	7,448	1·90	14,160
Oats—						Buckwheat—					
Long-time average	12,663	30·3	383,158	0·41	157,018	Long-time average	400	22·0	8,788	0·81	7,159
1942......	13,782	47·3	651,954	0·39	253,620	1942......	240	21·7	5,207	0·72	3,763
1943......	15,407	31·3	482,022	0·58[1]	277,492[1]	1943......	286	21·8	6,243	0·81	5,035
1944......	14,315	34·9	499,643	0·54	268,292	1944......	256	21·7	5,553	0·84	4,667
1945......	14,393	26·5	381,596	0·53	203,113	1945......	261	20·1	5,246	0·87	4,544
1946......	13,163	30·4	400,069	0·53	210,656	1946......	218	22·4	4,881	0·85	4,173
Barley—						Flaxseed—					
Long-time average	3,170	23·3	73,861	0·51	37,968	Long-time average	679	8·3	5,612	1·58	8,855
1942......	6,973	37·2	259,156	0·46	119,457	1942......	1,492	10·0	14,992	2·00	29,912
1943......	8,397	25·7	215,562	0·66	141,988	1943......	2,948	6·1	17,911	2·15	38,508
1944......	7,291	26·7	194,712	0·75[1]	146,517[1]	1944......	1,323	7·3	9,668	2·52	24,360
1945......	7,350	21·5	157,757	0·67	105,452	1945......	1,059	7·2	7,593	2·50	19,006
1946......	6,731	23·8	159,887	0·66	105,930	1946......	1,009	7·4	7,461	2·90	21,657

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[1] Revised since the publication of the 1946 Year Book.

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

SUMMARY, SHOWING YIELDS AND PRICES, 1942-46, WITH LONG-TIME AVERAGES—concluded

Crop and Year	Area	Yield per Acre	Production	Average Price	Total Value
	'000 acres	cwt.	'000 cwt.	$ per cwt.	$'000
Potatoes—					
Long-time average	561	86·0	48,242	1·06	50,950
1942......	506	85·0	42,882	1·50	64,247
1943......	533	82·0	43,541	1·79	77,784
1944......	535	92·0	49,409	1·53	75,391
1945......	508	71·0	35,986	2·26	81,168
1946......	521	92·0	48,031	1·59	76,164
		ton	'000 ton	$ per ton	
Hay and clover—					
Long-time average	9,168	1·48	13,577	11·62	157,765
1942......	9,707	1·65	16,061	10·86	174,391
1943......	9,816	1·76	17,238	11·04	190,357

Crop and Year	Area	Yield per Acre	Production	Average Price	Total Value
	'000 acres	ton	'000 ton	$ per ton	
Hay and clover—concluded					
1944......	10,120	1·49	15,102	12·77	192,837
1945......	10,219	1·73	17,724	12·06	213 769
1946......	10,223	1·44	14,739	12·06	177,768
Alfalfa—					
Long-time average..	502	2·41	1,207	11·06	13,349
1942......	1,440	2·59	3,731	9·62	35,894
1943......	1,544	2·52	3,891	10·75	41,811
1944......	1,521	2·41	3,670	11·65	42,773
1945......	1,587	2·44	3,880	12·40	48,130
1946......	1,540	2·08	3,207	12·94	41,500

DETAILS, BY PROVINCES, 1945-46, WITH FIVE-YEAR AVERAGES, 1940-44

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	$'000
Canada—				
Fall wheat. Av.	1940-44	674	18,935	17,285
	1945	675	20,115	21,926
	1946	546	16,274	20,017
Spring wheat Av.	1940-44	21,792	403,623	333,793
	1945	22,739	298,397	345,541
	1946	25,354	404,451	460,198
All wheat...Av.	1940-44	22,466	422,558	351,078
	1945	23,414	318,512	367,467
	1946	25,900	420,725	480,215
Oats........Av.	1940-44	13,614	464,344	206,413
	1945	14,393	381,596	203,113
	1946	13,163	400,069	210,656
Barley.....Av.	1940-44	6,459	176,850	97,791
	1945	7,350	157,757	105,452
	1946	6,731	159,887	105,930
Fall rye....Av.	1940-44	658	9,583	5,185
	1945	318	4,068	5,817
	1946	351	5,253	10,033
Spring rye .Av.	1940-44	254	3,640	2,150
	1945	170	1,820	2,863
	1946	183	2,195	4,127
All rye.....Av.	1940-44	912	13,223	7,335
	1945	488	5,888	8,680
	1946	534	7,448	14,160
Peas, dry...Av.	1940-44	91	1,488	3,317
	1945	94	1,363	3,863
	1946	119	2,198	6,475
Beans, dry. Av.	1940-44	95	1,554	3,206
	1945	96	1,294	3,456
	1946	92	1,570	4,855

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	$'000
Soybeans[1]..Av.	1942-44	39	725	1,329
	1945	46	844	1,604
	1946	59	1,072	2,369
Buckwheat Av.	1940-44	269	5,696	4,127
	1945	261	5,246	4,544
	1946	218	4,881	4,173
Mixed grains Av.	1940-44	1,487	50,700	26,962
	1945	1,453	46,927	30,353
	1946	1,399	54,924	36,457
Flaxseed ...Av.	1940-44	1,430	10,282	20,667
	1945	1,059	7,593	19,006
	1946	1,009	7,461	21,657
Shelled corn Av.	1940-44	285	11,047	8,781
	1945	237	10,365	10,774
	1946	247	10,542	11,157
			'000 cwt.	
Potatoes...Av.	1940-44	525	43,436	60,218
	1945	508	35,986	81,168
	1946	521	48,031	76,164
Turnips, etc. Av.	1940-44	164	34,155	17,947
	1945	138	25,493	22,246
	1946	130	27,302	20,085
			'000 tons	
Hay and clover....Av.	1940-44	9,603	15,021	167,585
	1945	10,219	17,724	213,769
	1946	10,223	14,739	177,768
Alfalfa .....Av.	1940-44	1,362	3,322	34,364
	1945	1,587	3,880	48,130
	1946	1,540	3,207	41,500

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[1] Includes small amounts in Provinces other than Ontario in 1942-44 and 1945.

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

DETAILS, BY PROVINCES, 1945-46, WITH FIVE-YEAR AVERAGES, 1940-44—con.

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 tons	$'000
Canada—conc.				
Fodder corn Av.	1940-44	482	4,240	16,100
	1945	493	3,637	15,188
	1946	473	4,008	16,966
Grain hay..Av.	1940-44	885	1,508	7,616
	1945	934	881	5,915
	1946	918	1,616	10,092
Sugar beets.Av.	1940-44	64	655	5,551
	1945	59	619	6,561
	1946	67	734	6,944
			'000 bu.	
P. E. Island—				
Spring wheat Av.	1940-44	9	169	168
	1945	4	80	86
	1946	4	78	94
Oats.......Av.	1940-44	127	4,198	2,181
	1945	119	4,403	2,686
	1946	117	4,212	2,654
Barley.....Av.	1940-44	13	380	297
	1945	14	397	337
	1946	10	272	245
Buckwheat.Av.	1940-44	3	52	41
	1945	2	39	35
	1946	1	24	24
Mixed grains Av.	1940-44	47	1,614	880
	1945	54	2,060	1,277
	1946	51	1,902	1,236
			'000 cwt.	
Potatoes ...Av.	1940-44	40	4,139	4,697
	1945	43	4,601	7,776
	1946	48	5,723	5,723
Turnips, etc. Av.	1940-44	13	3,301	1,454
	1945	12	3,348	2,578
	1946	10	3,276	1,966
			'000 tons	
Hay and clover.....Av.	1940-44	224	346	3,920
	1945	218	382	4,156
	1946	232	186	3,348
Fodder corn Av.	1940-44	1	8	50
	1945	1	8	44
	1946	1	9	54
			'000 bu.	
Nova Scotia—				
Spring wheat Av.	1940-44	2	42	43
	1945	1	21	24
	1946	1	25	29
Oats.......Av.	1940-44	73	2,564	1,593
	1945	68	1,910	1,394
	1946	67	2,554	1,813
		'000 acres	'000 bu.	$'000
Nova Scotia—concluded				
Barley.....Av.	1940-44	10	329	267
	1945	10	220	213
	1946	9	247	240
Buckwheat.Av.	1940-44	3	66	59
	1945	2	34	36
	1946	2	43	45
Mixed grains Av.	1940-44	7	207	151
	1945	6	148	121
	1946	4	144	121
			'000 cwt.	
Potatoes....Av.	1940-44	22	2,230	3,347
	1945	22	1,904	4,265
	1946	24	2,832	4,106
Turnips, etc. Av.	1940-44	13	3,733	2,381
	1945	12	2,684	4,053
	1946	11	3,263	3,263
			'000 tons	
Hay and clover....Av.	1940-44	403	671	9,073
	1945	438	788	11,489
	1946	428	599	9,344
Fodder corn Av.	1940-44	1	10	49
	1945	1	6	24
	1946	1	9	56
			'000 bu.	
New Brunswick				
Spring wheat Av.	1940-44	5	92	105
	1945	2	41	52
	1946	2	34	45
Oats.......Av.	1940-44	202	6,658	4,039
	1945	202	6,464	4,396
	1946	186	6,324	3,984
Barley.....Av.	1940-44	18	527	462
	1945	13	372	372
	1946	11	325	296
Beans, dry..Av.	1940-44	2	27	105
	1945	1	17	60
	1946	1	20	80
Buckwheat.Av.	1940-44	23	534	492
	1945	15	332	359
	1946	15	412	449
Mixed grains Av.	1940-44	11	332	226
	1945	12	381	263
	1946	10	356	242
			'000 cwt.	
Potatoes....Av.	1940-44	56	8,050	10,864
	1945	66	6,752	14,854
	1946	69	9,618	9,618

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

DETAILS, BY PROVINCES, 1945-46, WITH FIVE-YEAR AVERAGES, 1940-44—con.

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 cwt.	$'000
New Brunswick—concluded				
Turnips, etc. Av.	1940-44	15	3,772	2,679
	1945	14	2,363	1,536
	1946	13	2,934	1,760
			'000 tons	
Hay and clover....Av.	1940-44	605	935	12,965
	1945	656	1,050	15,309
	1946	646	711	11,376
Fodder corn Av.	1940-44	3	22	110
	1945	2	10	50
	1946	2	26	156
			'000 bu.	
Quebec—				
Spring wheat Av.	1940-44	28	524	519
	1945	24	398	454
	1946	23	389	451
Oats.......Av.	1940-44	1,684	44,934	25,446
	1945	1,654	37,877	24,999
	1946	1,467	34,756	22,939
Barley.....Av.	1940-44	147	3,564	2,633
	1945	133	2,851	2,480
	1946	125	2,748	2,336
Spring rye..Av.	1940-44	10	174	150
	1945	9	139	133
	1946	8	126	126
Peas, dry...Av.	1940-44	25	399	1,186
	1945	23	296	995
	1946	23	303	1,103
Beans, dry..Av.	1940-44	13	209	618
	1945	12	197	695
	1946	12	198	764
Buckwheat.Av.	1940-44	89	1,810	1,399
	1945	83	1,720	1,617
	1946	78	1,627	1,513
Mixed grains Av.	1940-44	237	6,671	4,458
	1945	258	6,832	5,329
	1946	251	6,687	5,550
			'000 cwt.	
Potatoes....Av.	1940-44	159	12,344	17,239
	1945	156	9,054	22,635
	1946	152	11,400	21,432
Turnips, etc. Av.	1940-44	41	6,907	4,412
	1945	31	4,590	6,059
	1946	24	4,169	3,835
			'000 tons	
Hay and clover....Av.	1940-44	3,957	5,450	72,334
	1945	4,207	6,774	85,285
	1946	4,182	5,437	67,799

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 tons	$'000
Quebec—concl.				
Alfalfa......Av.	1940-44	51	122	1,831
	1945	72	179	2,495
	1946	69	145	2,108
Fodder corn Av.	1940-44	82	723	3,950
	1945	97	838	4,894
	1946	90	771	4,703
Sugar beets.Av.	1940-44	–	–	–
	1945	1	10	118
	1946	2	18	216
			'000 bu.	
Ontario—				
Fall wheat..Av.	1940-44	674	18,935	17,285
	1945	675	20,115	21,926
	1946	546	16,274	20,017
Spring wheat Av.	1940-44	46	879	783
	1945	36	713	777
	1946	38	836	1,018
All wheat...Av.	1940-44	720	19,814	18,068
	1945	711	20,828	22,703
	1946	584	17,110	21,035
Oats.......Av.	1940-44	1,872	67,873	31,761
	1945	1,522	53,879	31,250
	1946	1,635	71,776	38,760
Barley.....Av.	1940-44	365	11,150	6,605
	1945	305	9,394	6,858
	1946	293	10,753	7,742
Fall rye....Av.	1940-44	75	1,348	963
	1945	68	1,249	1,237
	1946	65	1,378	2,522
Peas, dry...Av.	1940-44	34	551	1,100
	1945	24	357	1,071
	1946	34	720	2,045
Beans, dry..Av.	1940-44	78	1,282	2,414
	1945	81	1,060	2,650
	1946	77	1,328	3,944
Soybeans....Av.	1942-44	36	698	1,280
	1945	46	842	1,600
	1946	59	1,072	2,369
Buckwheat.Av.	1940-44	145	3,135	2,059
	1945	152	3,025	2,390
	1946	116	2,691	2,045
Mixed grains Av.	1940-44	1,024	37,123	18,959
	1945	943	33,477	20,756
	1946	946	42,286	27,063
Flaxseed....Av.	1940-44	20	204	382
	1945	23	230	529
	1946	18	169	512
Shelled corn Av.	1940-44	224	9,978	8,029
	1945	227	10,215	10,624
	1946	240	10,392	11,016

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

DETAILS, BY PROVINCES, 1945-46, WITH FIVE-YEAR AVERAGES, 1940-44—con.

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 cwt.	$'000
Ontario—conc.				
Potatoes....Av.	1940-44	125	7,511	12,792
	1945	116	7,633	19,083
	1946	120	10,800	19,980
Turnips, etc. Av.	1940-44	67	14,483	5,509
	1945	58	11,507	6,674
	1946	61	12,546	7,779
			'000 tons	
Hay and clover....Av.	1940-44	2,946	5,138	49,622
	1945	3,008	6,166	68,707
	1946	2,952	5,197	55,606
Alfalfa.....Av.	1940-44	762	1,963	20,359
	1945	795	2,139	25,518
	1946	708	1,599	18,916
Fodder corn Av.	1940-44	315	3,112	10,042
	1945	338	2,603	9,111
	1946	340	3,050	10,980
Sugar beets.Av.	1940-44	23	232	1,773
	1945	18	164	1,915
	1946	23	233	2,963
			'000 bu.	
Manitoba—				
Spring wheat Av.	1940-44	2,406	51,940	43,418
	1945	2,132	38,800	46,172
	1946	2,835	63,000	74,970
Oats........Av.	1940-44	1,466	53,740	23,253
	1945	1,697	54,500	27,795
	1946	1,598	55,000	28,600
Barley.....Av.	1940-44	1,854	52,840	28,838
	1945	2,139	52,500	35,700
	1946	1,883	48,000	32,640
Fall rye....Av.	1940-44	101	1,646	811
	1945	19	283	458
	1946	17	275	531
Spring rye..Av.	1940-44	23	378	202
	1945	7	96	156
	1946	9	140	270
All rye.....Av.	1940-44	124	2,024	1,013
	1945	26	379	614
	1946	26	415	801
Peas, dry...Av.	1940-44	6	113	213
	1945	11	231	575
	1946	25	500	1,425
Buckwheat.Av.	1940-44	6	99	77
	1945	7	96	107
	1946	6	84	97
Mixed grains Av.	1940-44	36	1,032	523
	1945	42	1,043	605
	1946	29	870	513
		'000 acres	'000 bu.	$'000
Manitoba—conc.				
Flaxseed....Av.	1940-44	188	1,701	3,364
	1945	260	2,800	7,028
	1946	343	3,360	9,778
Shelled corn Av.	1941-44[1]	61	1,069	752
	1945	10	150	150
	1946	7	150	141
			'000 cwt.	
Potatoes....Av.	1940-44	31	2,223	2,203
	1945	25	1,500	2,430
	1946	23	1,215	1,956
Turnips, etc. Av.	1940-44	4	468	311
	1945	3	293	293
	1946	4	350	350
			'000 tons	
Hay and clover....Av.	1940-44	426	777	4,612
	1945	419	754	5,459
	1946	532	532	4,745
Alfalfa.....Av.	1940-44	179	397	3,293
	1945	285	656	6,803
	1946	300	480	6,221
Fodder corn Av.	1940-44	53	227	1,111
	1945	34	68	430
	1946	22	55	428
Sugar beets.Av.	1940-44	15	101	787
	1945	10	82	691
	1946	12	98	685
			'000 bu.	
Saskatchewan—				
Spring wheat Av.	1940-44	12,593	221,360	187,614
	1945	13,610	168,100	194,996
	1946	14,843	200,000	228,000
Oats........Av.	1940-44	4,987	163,700	70,078
	1945	5,717	143,000	71,500
	1946	5,055	117,000	58,500
Barley.....Av.	1940-44	2,279	58,840	32,701
	1945	2,672	54,500	35,425
	1946	2,484	46,000	29,900
Fall rye....Av.	1940-44	386	5,014	2,552
	1945	148	1,332	2,171
	1946	179	2,000	3,860
Spring rye..Av.	1940-44	157	2,168	1,320
	1945	111	1,288	2,100
	1946	123	1,400	2,702
All rye.....Av.	1940-44	543	7,182	3,872
	1945	259	2,620	4,271
	1946	302	3,400	6,562

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[1] No production previous to 1941.

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—continued

DETAILS, BY PROVINCES, 1945-46, WITH FIVE-YEAR AVERAGES, 1940-44—con.

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	$'000
Saskatchewan— concluded				
Peas, dry...Av.	1940-44	4	60	120
	1945	4	97	275
	1946	10	153	436
Mixed grains Av.	1940-44	62	1,856	945
	1945	71	1,413	1,003
	1946	60	1,180	767
Flaxseed....Av.	1940-44	999	6,754	13,670
	1945	655	3,800	9,538
	1946	557	3,200	9,280
			'000 cwt.	
Potatoes....Av.	1940-44	46	2,871	3,094
	1945	37	1,354	2,722
	1946	37	1,776	3,374
Turnips, etc. Av.	1940-44	3	296	246
	1945	3	122	207
	1946	2	141	228
			'000 tons	
Hay and clover....Av.	1940-44	304	490	3,118
	1945	350	490	4,523
	1946	362	507	4,730
Alfalfa......Av.	1940-44	106	200	1,793
	1945	88	167	2,067
	1946	103	160	2,123
Fodder corn Av.	1940-44	13	40	236
	1945	6	18	108
	1946	7	19	148
			'000 bu.	
Alberta—				
Spring wheat Av.	1940-44	6,617	126,360	98,993
	1945	6,824	87,700	99,978
	1946	7,500	137,000	152,070
Oats.......Av.	1940-44	3,119	116,520	46,174
	1945	3,335	76,000	37,240
	1946	2,957	104,000	50,960
Barley.....Av.	1940-44	1,753	48,540	25,547
	1945	2,048	37,000	23,680
	1946	1,902	51,000	32,130
Fall rye....Av.	1940-44	96	1,575	859
	1945	83	1,204	1,951
	1946	90	1,600	3,120
Spring rye..Av.	1940-44	61	863	441
	1945	42	273	442
	1946	42	500	975
All rye.....Av.	1940-44	157	2,438	1,300
	1945	125	1,477	2,393
	1946	132	2,100	4,095
Peas, dry...Av.	1940-44	15	222	448
	1945	25	247	630
	1946	19	314	942

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	$'000
Alberta—conc.				
Beans, dry..Av.	1940-44	1	16	31
	1945	1	2	6
	1946	1	3	11
Mixed grains Av.	1940-44	57	1,638	693
	1945	62	1,377	868
	1946	40	1,151	725
Flaxseed....Av.	1940-44	220	1,589	3,184
	1945	119	738	1,838
	1946	90	725	2,066
			'000 cwt.	
Potatoes....Av.	1940-44	29	2,165	2,652
	1945	26	1,554	3,481
	1946	29	2,254	4,666
Turnips, etc. Av.	1940-44	4	403	365
	1945	3	195	357
	1946	3	224	385
			'000 tons	
Hay and clover....Av.	1940-44	537	807	6,096
	1945	692	830	9,462
	1946	662	1,059	11,331
Alfalfa.....Av.	1940-44	197	448	4,237
	1945	275	536	7,349
	1946	281	590	7,759
Fodder corn Av.	1940-44	9	44	257
	1945	9	39	221
	1946	6	24	144
Grain hay..Av.	1940-44	850	1,432	6,766
	1945	900	810	5,063
	1946	882	1,544	9,264
Sugar beets.Av.	1940-44	26	322	2,991
	1945	30	363	3,837
	1946	30	385	3,080
			'000 bu.	
British Columbia—				
Spring wheat Av.	1940-44	86	2,257	2,150
	1945	106	2,544	3,002
	1946	108	3,089	3,521
Oats........Av.	1940-44	84	4,157	1,888
	1945	79	3,563	1,853
	1946	81	4,447	2,446
Barley.....Av.	1940-44	20	680	441
	1945	16	523	387
	1946	14	542	401
Spring rye..Av.	1940-44	3	57	37
	1945	1	24	32
	1946	1	29	54
Peas, dry...Av.	1940-44	7	143	250
	1945	7	135	317
	1946	8	208	524

8.—Acreages, Yields and Values of Principal Field Crops Grown in Canada—concluded

DETAILS, BY PROVINCES, 1945-46, WITH FIVE-YEAR AVERAGES, 1940-44—conc.

Province and Field Crop	Year	Area	Total Production	Gross Farm Value
		'000 acres	'000 bu.	$'000
British Columbia—continued				
Beans, dry..Av.	1940-44	1	20	38
	1945	1	18	45
	1946	1	21	56
Mixed grains Av.	1940-44	6	227	127
	1945	5	196	131
	1946	8	348	240
Flaxseed....Av.	1940-44	3	34	67
	1945	2	25	73
	1946	1	7	21
			'000 cwt.	
Potatoes....Av.	1940-44	17	1,903	3,330
	1945	17	1,634	3,922
	1946	19	2,413	5,309
Turnips, etc. Av.	1940-44	4	792	590
	1945	2	391	489
	1946	2	399	519
		'000 acres	'000 tons	$'000
British Columbia—concluded				
Hay and clover....Av.	1940-44	201	407	5,845
	1945	231	490	9,379
	1946	227	511	9,489
Alfalfa......Av.	1940-44	67	192	2,851
	1945	72	203	3,898
	1946	79	233	4,373
Fodder corn Av.	1940-44	5	54	295
	1945	5	47	306
	1946	4	45	297
Grain hay..Av.	1940-44	35	76	850
	1945	34	71	852
	1946	36	72	828

9.—Acreages and Production of Grain in the Prairie Provinces, 1944-46

Kind of Grain	Acreages			Production		
	1944	1945	1946[1]	1944	1945	1946[1]
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
Wheat	22,444	22,566	25,178	391,700	294,600	400,000
Oats	10,447	10,749	9,610	370,800	273,500	276,000
Barley	6,763	6,859	6,269	178,400	144,000	145,000
Rye	573	410	460	7,109	4,476	5,915
Flaxseed	1,298	1,034	990	9,405	7,338	7,285

[1] Subject to revision.

Stocks of Grain in Canada.—Table **10** shows the stocks of Canadian grain on hand on July 31, for the years 1936-46, in both Canada and the United States as well as the amounts held on farms at that date. Farm stocks are given for Canada and the Prairie Provinces separately, while an additional column indicates the amounts held in country elevators in the Prairie Provinces.

10.—Carryover of Canadian Grain as at July 31, 1936-46

Year ended July 31—	Total in Canada and U.S.A.	Total in Canada	In Commercial Storage in Canada	On Farms in Canada	Prairie Provinces	
					On Farms	In Country Elevators
	bu.	bu.	bu.	bu.	bu.	bu.
			WHEAT			
1936	127,362,598	108,094,277	102,574,277	5,520,000	4,550,000	30,760,751
1937	36,850,700	32,937,991	28,938,691	3,999,300	3,392,000	3,401,452
1938	24,535,858	23,553,228	18,492,228	5,061,000	3,579,000	1,166,971
1939	102,161,568	94,631,948	89,949,948	4,682,000	2,805,000	7,811,988
1940	300,473,465	272,927,932	255,641,932	17,286,000	14,250,000	57,659,694
1941	480,129,311	448,337,801	434,383,801	13,954,000	11,500,000	217,873,891
1942	423,752,337	404,896,791	394,450,791	10,446,000	9,200,000	133,406,134
1943	594,626,019	579,370,626	389,163,626	190,207,000	187,000,000	226,185,096
1944	356,531,079	338,137,557	284,266,557	53,871,000	52,850,000	136,729,502
1945	258,072,830	238,480,041	209,830,041	28,650,000	27,000,000	62,050,936
1946[1]	69,858,181	69,724,181	42,521,181	27,203,000	25,841,000	11,200,198
			OATS			
1936	40,379,860	40,379,860	9,193,860	31,186,000	17,039,000	3,017,646
1937	18,266,043	18,266,043	3,035,043	15,231,000	4,518,000	674,703
1938	19,498,653	19,498,653	3,378,653	16,120,000	7,106,000	448,689
1939	48,887,155	48,796,155	9,142,155	39,654,000	26,501,000	1,798,979
1940	46,931,028	46,585,416	6,804,416	39,781,000	23,214,000	1,962,724
1941	41,563,379	41,252,114	4,150,114	37,102,000	20,137,000	722,020
1942	28,607,188	28,607,188	4,434,188	24,173,000	11,952,000	1,407,606
1943	149,340,515	146,871,148	28,467,148	118,404,000	102,000,000	14,706,361
1944	108,479,383	107,745,201	38,322,201	69,423,000	61,830,000	13,705,907
1945	98,255,162	94,749,878	29,924,878	64,825,000	54,500,000	5,460,089
1946[1]	75,221,488	75,221,488	24,134,488	51,087,000	40,902,000	5,446,800
			BARLEY			
1936	10,234,224	9,845,486	5,646,286	4,199,200	2,627,000	1,564,385
1937	4,796,213	4,315,699	2,839,299	1,476,400	755,000	189,064
1938	6,630,934	6,630,934	3,453,434	3,177,500	2,233,000	308,530
1939	12,804,186	12,784,186	5,437,486	7,346,700	5,826,000	1,085,307
1940	12,653,875	11,502,370	4,427,370	7,075,000	5,351,000	1,113,229
1941	10,908,001	10,425,898	3,920,898	6,505,000	4,895,000	767,478
1942	10,821,502	10,821,502	5,709,502	5,112,000	4,194,000	924,577
1943	69,278,502	65,922,701	24,608,701	41,314,000	40,000,000	10,350,218
1944	45,949,269	45,671,344	22,292,344	23,379,000	22,825,000	7,534,783
1945	28,919,181	28,253,191	10,434,191	17,819,000	17,000,000	4,258,071
1946[1]	29,634,689	29,530,149	15,646,149	13,884,000	13,250,000	5,868,896
			RYE			
1936	3,685,252	3,194,369	2,923,769	270,600	225,000	1,038,027
1937	408,864	408,864	330,464	78,400	68,000	65,598
1938	1,000,576	985,576	907,576	78,000	44,000	52,537
1939	2,921,434	1,975,871	1,595,871	380,000	345,000	495,747
1940	5,351,661	2,045,636	1,426,636	619,000	545,000	556,708
1941	4,919,122	1,859,871	1,399,871	460,000	399,000	399,395
1942	3,353,203	2,024,203	1,821,203	203,000	145,000	348,020
1943	15,267,755	14,399,369	8,313,369	6,086,000	6,000,000	3,993,573
1944	5,594,285	4,384,155	3,340,155	1,044,000	1,000,000	566,590
1945	2,023,933	2,023,933	1,518,933	505,000	465,000	123,595
1946[1]	714,486	714,486	461,486	253,000	215,000	210,363
			FLAXSEED			
1936	269,287	269,287	261,687	7,600	5,200	99,722
1937	464,967	464,967	455,167	9,800	9,500	82,527
1938	219,027	219,027	217,227	1,800	1,000	26,093
1939	118,822	118,822	113,922	4,900	4,800	37,786
1940	583,307	583,307	556,507	26,800	26,500	198,684
1941	620,313	620,313	605,313	15,000	14,000	109,667
1942	1,027,040	1,027,040	1,005,040	22,000	19,000	51,504
1943	3,740,121	3,740,121	3,346,121	394,000	385,000	1,228,803
1944	3,648,642	3,648,642	2,824,642	824,000	814,000	280,819
1945	2,932,111	2,932,111	2,178,111	754,000	750,000	321,182
1946[1]	1,643,259	1,643,259	1,000,259	643,000	635,000	60,921

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[1] Subject to revision.

Subsection 4.—Live Stock

The growth of the live-stock industry in Canada from decade to decade is indicated in summary form in Table **11**.

11.—Live Stock in Canada, Censuses of 1871-1941

Item	1871	1881	1891	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.	No.	No.	No.
Horses	836,743	1,059,358	1,470,572	1,577,493	2,598,958	3,610,494	3,215,431	2,845,008
All cattle	2,624,290	3,433,989	4,120,586	5,576,451	6,526,083	8,513,495	8,099,883	8,653,045
Milk cows	*1,251,209*	*1,595,800*	*1,857,112*	*2,408,677*	*2,595,255*	*3,318,664*[1]	*3,585,114*[1]	*3,707,163*[2]
Other cattle	*1,373,081*	*1,838,189*	*2,263,474*	*3,167,774*	*3,930,828*	*5,194,831*	*4,514,769*	*4,945,882*
Sheep	3,155,509	3,048,678	2,563,781	2,510,239	2,174,300	3,203,966	3,627,116	2,839,948
Swine	1,366,083	1,207,619	1,733,850	2,353,828	3,634,778	3,404,730	4,774,828	6,174,309

[1] Cows in milk or in calf. [2] Cows and heifers, two years old or over, kept mainly for milk purposes.

Live stock on farms as obtained from the census data cannot be separated from the total numbers except for the past three census years. Table **12** gives the numbers of live stock on farms for those years.

12.—Live Stock on Farms, Censuses of 1921, 1931 and 1941

Item	1921	1931	1941
	No.	No.	No.
Horses	3,451,752	3,113,909	2,788,795
All cattle	8,369,489	7,973,031	8,517,007
Milk cows	*3,228,633*[1]	*3,523,001*[1]	*3,626,025*
Other cattle	*5,140,856*	*4,450,030*	*4,890,982*
Sheep	3,200,467	3,627,116	2,839,948
Swine	3,324,291	4,699,831	6,081,389

[1] Cows in milk or in calf. [2] Cows and heifers, two years old or over, kept mainly for milk purposes.

However, annual estimates based on census data are made of numbers of animals on farms. The indexes in Table **13** are the estimates of live stock for the respective years expressed as percentages of the numbers on farms during the period 1935 to 1939. Table **14** gives the absolute figures by provinces for 1942-46 and Table **15** the average values per head of farm live stock in the same years.

13.—Index Numbers of Animals on Farms, 1937-46

(Average 1935-39=100)

NOTE.—Comparable figures for 1906-36 are given at pp. 211-212 of the 1945 Year Book.

Year	Horses	Milk Cows	Other Cattle	All Cattle	Sheep and Lambs	Swine
1937	100·4	101·7	102·7	102·3	99·6	102·0
1938	97·8	98·7	96·5	97·4	98·8	89·5
1939	97·5	97·4	95·1	96·1	94·4	110·8
1940	98·1	96·5	95·8	96·1	93·6	152·4
1941	98·4	95·9	99·1	97·7	92·1	154·4
1942	99·4	97·4	106·6	102·6	103·7	180·9
1943	98·0	100·4	118·9	110·9	112·2	206·9
1944	96·6	103·9	130·0	118·7	120·9	196·5
1945	91·2	105·8	137·0	123·4	117·5	153·0
1946	84·6	103·5	131·1	119·1	109·6	136·5

14.—Numbers of Farm Live Stock, by Provinces, June 1, 1942-46

Province and Item	1942	1943	1944	1945	1946	Province and Item	1942	1943	1944	1945	1946
	'000	'000	'000	'000	'000		'000	'000	'000	'000	'000
Canada—						**Ontario—**					
Horses	2,816	2,775	2,735	2,585	2,397	Horses	527	522	507	492	467
Milk cows	3,681	3,795	3,930	3,998	3,914	Milk cows	1,150	1,170	1,188	1,253	1,250
Other cattle	5,264	5,870	6,416	6,760	6,471	Other cattle	1,489	1,524	1,557	1,655	1,618
Sheep	3,197	3,459	3,726	3,622	3,378	Sheep	689	738	737	724	701
Swine	7,125	8,148	7,741	6,026	5,377	Swine	1,861	1,885	1,900	1,979	2,013
P. E. Island—						**Manitoba—**					
Horses	28	27	27	27	25	Horses	305	298	290	264	242
Milk cows	47	46	46	47	46	Milk cows	345	370	387	366	349
Other cattle	52	54	59	59	56	Other cattle	477	558	606	658	636
Sheep	47	56	58	60	55	Sheep	311	327	319	288	229
Swine	58	65	66	60	64	Swine	708	877	624	457	377
Nova Scotia—						**Saskatchewan—**					
Horses	36	36	36	35	34	Horses	830	824	819	783	708
Milk cows	104	104	109	109	103	Milk cows	468	503	529	525	502
Other cattle	100	108	123	117	115	Other cattle	928	1,100	1,356	1,454	1,362
Sheep	149	162	161	160	154	Sheep	410	463	531	513	518
Swine	54	65	69	59	49	Swine	1,325	1,755	1,600	1,007	757
New Brunswick—						**Alberta—**					
Horses	46	48	47	46	45	Horses	647	628	603	564	501
Milk cows	111	113	118	119	116	Milk cows	367	376	386	376	354
Other cattle	96	107	114	107	102	Other cattle	1,102	1,251	1,357	1,484	1,414
Sheep	94	107	111	114	104	Sheep	828	900	1,023	975	897
Swine	85	94	104	82	78	Swine	2,093	2,338	2,279	1,469	1,104
Quebec—						**British Columbia—**					
Horses	335	330	344	314	318	Horses	62	62	62	60	57
Milk cows	997	1,019	1,071	1,104	1,098	Milk cows	92	94	96	99	96
Other cattle	784	886	959	908	874	Other cattle	236	282	285	318	294
Sheep	544	574	638	649	595	Sheep	125	132	148	139	125
Swine	859	979	1,001	844	868	Swine	82	90	98	69	67

15.—Average Values per Head of Farm Live Stock, by Provinces, 1942-46

NOTE.—Values shown in this table are not strictly comparable; for 1942 they are based on the 1941 census figures, and for the other years they are derived from reports of crop and live-stock correspondents.

Province and Item	1942	1943	1944	1945	1946	Province and Item	1942	1943	1944	1945	1946
	$	$	$	$	$		$	$	$	$	$
Canada—						**Ontario—**					
Horses	69	80	75	69	73	Horses	88	109	102	95	98
All cattle	49	71	67	68	76	All cattle	59	81	77	79	90
Milk cows	*70*	*102*	*97*	*98*	*110*	Milk cows	*81*	*115*	*111*	*114*	*128*
Other cattle	*34*	*51*	*49*	*51*	*55*	Other cattle	*42*	*55*	*51*	*53*	*60*
Sheep	6·90	10·90	9·90	9·40	9·80	Sheep	9·40	13·50	11·80	11·80	12·20
Swine	10·70	16·50	18·40	20·10	22·60	Swine	12·30	16·50	19·40	22·70	25·40
P. E. Island—						**Manitoba—**					
Horses	105	111	113	115	114	Horses	55	65	59	53	54
All cattle	36	58	52	57	65	All cattle	48	67	65	64	67
Milk cows	*54*	*85*	*78*	*85*	*96*	Milk cows	*70*	*93*	*91*	*87*	*92*
Other cattle	*20*	*35*	*32*	*35*	*39*	Other cattle	*32*	*50*	*48*	*51*	*54*
Sheep	6·40	10·40	8·60	9·20	10·20	Sheep	6·40	10·20	9·30	8·00	8·90
Swine	11·60	15·70	20·20	21·60	25·50	Swine	9·70	17·20	18·50	19·00	20·10
Nova Scotia—						**Saskatchewan—**					
Horses	115	139	140	144	153	Horses	52	55	48	40	42
All cattle	41	59	55	58	71	All cattle	45	66	64	62	66
Milk cows	*53*	*81*	*80*	*83*	*99*	Milk cows	*66*	*94*	*93*	*87*	*94*
Other cattle	*28*	*39*	*33*	*36*	*47*	Other cattle	*34*	*54*	*52*	*53*	*55*
Sheep	5·30	9·10	9·40	9·90	8·90	Sheep	6·20	10·40	9·40	7·70	8·20
Swine	12·10	18·60	18·90	20·30	25·70	Swine	8·50	16·00	17·70	18·60	19·00
New Brunswick—						**Alberta—**					
Horses	113	144	143	142	146	Horses	50	55	49	41	46
All cattle	32	57	54	55	63	All cattle	43	64	62	63	67
Milk cows	*45*	*81*	*77*	*77*	*89*	Milk cows	*67*	*89*	*88*	*89*	*96*
Other cattle	*16*	*32*	*31*	*30*	*34*	Other cattle	*35*	*56*	*54*	*56*	*60*
Sheep	5·20	9·60	8·80	8·30	9·10	Sheep	6·30	10·00	9·00	8·60	8·70
Swine	10·90	21·30	20·20	20·30	23·10	Swine	10·50	16·00	18·10	18·90	19·60
Quebec—						**British Columbia—**					
Horses	114	138	137	134	134	Horses	62	103	101	96	100
All cattle	45	75	68	70	81	All cattle	52	62	64	64	67
Milk cows	*65*	*105*	*96*	*95*	*111*	Milk cows	*75*	*86*	*88*	*91*	*94*
Other cattle	*20*	*40*	*37*	*39*	*43*	Other cattle	*43*	*54*	*57*	*56*	*59*
Sheep	6·20	10·60	10·10	9·50	10·60	Sheep	7·10	11·20	11·20	10·70	11·50
Swine	11·30	17·90	17·80	18·60	24·00	Swine	11·40	16·00	17·60	19·20	20·10

Wool.—Total wool production in Canada in 1946 amounted to 19,001,000 lb., a reduction of 625,000 lb. from the 1945 output. This reduction was attributable to a decline of over 800,000 lb. in shorn wool production. Increased slaughterings of sheep and lambs resulted in a higher pulled wool output. There were large imports of wool during the year and the apparent domestic disappearance was over 45,000,000 lb. higher than in 1945, but, as data are not available on stocks of wool in storage, the figures for actual consumption in any individual year could be quite different from the apparent disappearance.

Gross income and cash income from shorn wool rose steadily during the war years, but decreased production through 1945 and 1946 has caused a subsequent drop in income. Average farm prices for Canada were 27·7 cents per lb. in both 1945 and 1946.

16.—Estimated Production, Exports, Imports and Apparent Consumption of Wool, 1937-46

Note.—All estimates are on a 'greasy' basis. Comparable statistics of production for the years 1920-29 are given at p. 219 of the 1939 Year Book and for 1930-36 at p. 214 of the 1945 edition.

Year	Shorn				Pulled	Total Production	Exports	Imports	Apparent Consumption
	Yield per Fleece	Total Yield Shorn	Price per Pound	Total Value Shorn					
	lb.	'000 lb.	cts.	$	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
1937......	7·2	12,289	15·4	1,891,000	3,785	16,074	5,093	60,375	71,356
1938......	7·3	12,000	11·7	1,401,000	3,628	15,628	4,398	45,101	56,331
1939......	7·5	11,761	13·5	1,588,000	3,489	15,250	4,879	51,953	62,324
1940......	7·4	11,549	19·3	2,228,000	3,346	14,895	2,681	86,170	98,384
1941......	7·5	11,630	22·1	2,571,000	3,624	15,254	3,025	93,070	105,299
1942......	7·7	12,867	25·5	3,283,000	3,610	16,477	384	114,428	130,521
1943......	7·5	13,929	27·0	3,761,000	3,889	17,818	2,316	104,364	119,866
1944......	7·5	15,128	27·1	4,106,000	4,151	19,279	15,520	52,690	56,449
1945......	7·6	14,513	27·7	4,015,000	5,113	19,626	11,927	59,506	67,205
1946......	7·6	13,711	27·7[1]	3,801,000[1]	5,290	19,001	6,409	100,042	112,634

[1] Subject to revision.

Subsection 5.—Poultry and Eggs

The number of live poultry on farms in Canada in 1946 was only slightly above the 1945 level, while the value increased by 11·1 p.c. Hens and chickens accounted for the increase in number, since, for Canada as a whole, there were fewer turkeys, geese and ducks than in the previous year. In each case, however, the value was higher than for 1945.

The production of eggs was lower in 1946 than in 1945, due to a reduction of chick hatchings in 1945 as compared with the previous year, and a consequent decrease in 1946 layers. There was also a slight decrease in the production of poultry meat in 1946 as compared with 1945.

17.—Numbers and Values of Farm Poultry in Canada, as at June 1, 1941-46, and by Provinces, 1944-46

Province and Year	Total Poultry		Hens and Chickens		Turkeys		Geese		Ducks	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
	'000	$'000	'000	$'000	'000	$'000	'000	$'000	'000	$'000
Totals—										
1941	**63,471**	**27,412**	**58,994**	**24,506**	**3,205**	**2,050**	**650**	**560**	**622**	**296**
1942	**73,130**[1]	**35,893**[1]	**68,106**	**32,230**	**3,541**	**2,582**	**686**	**654**	**797**[1]	**427**[1]
1943	**79,247**[1]	**70,802**[1]	**74,961**	**63,615**	**2,955**	**5,657**	**628**	**920**	**703**[1]	**610**[1]
1944	**91,644**[1]	**82,201**[1]	**86,792**	**73,693**	**3,380**	**6,789**	**658**	**1,011**	**814**[1]	**708**[1]
1945	**89,505**[1]	**82,521**[1]	**84,725**	**73,612**	**3,326**	**7,122**	**641**	**1,032**	**813**[1]	**755**[1]
1946	**90,285**	**91,696**	**85,894**	**82,671**	**3,038**	**7,188**	**616**	**1,078**	**737**	**759**
P.E.I.—										
1944	1,259	1,288	1,222	1,237	9	19	14	20	14	12
1945	1,257	1,380	1,220	1,318	8	18	14	28	15	16
1946	1,191	1,470	1,154	1,388	10	35	16	33	11	14
N.S.—										
1944	1,978	2,176	1,947	2,112	17	40	8	16	6	8
1945	1,842	1,788	1,805	1,699	19	61	8	17	10	11
1946	2,338	2,777	2,300	2,691	23	63	8	15	7	8
N.B.—										
1944	1,844	2,095	1,792	1,979	34	86	10	20	8	10
1945	1,923	2,036	1,869	1,915	35	87	11	23	8	11
1946	1,812	2,222	1,771	2,111	24	75	10	24	7	12
Que.—										
1944	12,606[1]	13,314[1]	12,255	12,526	228	627	37	75	86[1]	86[1]
1945	12,130[1]	13,144[1]	11,725	12,197	302	804	35	73	68[1]	70[1]
1946	12,273	14,583	11,885	13,617	283	822	30	62	75	82
Ont.—										
1944	27,467	25,697	26,164	23,466	673	1,443	296	486	334	302
1945	28,642	28,894	27,279	26,295	706	1,697	299	529	358	373
1946	29,774	33,564	28,467	30,679	668	1,916	290	578	349	391
Man.—										
1944	9,739	7,918	9,049	6,782	514	961	76	96	100	79
1945	9,591	7,753	8,937	6,675	457	886	77	103	120	89
1946	9,426	7,930	8,891	6,975	372	774	81	114	82	67
Sask.—										
1944	20,703	16,255	19,249	13,697	1,222	2,313	98	142	134	103
1945	18,982	14,818	17,627	12,350	1,146	2,255	90	121	119	92
1946	18,456	15,040	17,347	12,880	925	1,949	83	117	101	94
Alta.—										
1944	11,818	9,418	10,959	8,003	627	1,177	111	142	121	96
1945	10,948	8,721	10,167	7,371	576	1,142	100	125	105	83
1946	10,460	9,054	9,652	7,592	625	1,266	90	118	93	78
B.C.—										
1944	4,230	4,040	4,155	3,891	56	123	8	14	11	12
1945	4,190	3,987	4,096	3,792	77	172	7	13	10	10
1946	4,555	5,056	4,427	4,738	108	288	8	17	12	13

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[1] The numbers and values of ducks in Quebec for 1942-45 have been revised since the publication of the 1946 Year Book.

18.—Production, Utilization and Total Values of Farm Eggs in Canada, 1941-46, and by Provinces, 1944-46

Province and Year	Laying Hens	Production per Hen	Total Egg Production[1]	Sold Off Farms	Farm-Home Consumed	Price per Dozen	Total Value
	No.	No.	doz.	doz.	doz.	cts.	$
Totals—							
1941	**25,874,000**	**113**	**244,468,000**	**158,219,000**	**81,360,000**	**21·4**	**52,212,000**
1942	**29,236,000**	**115**	**280,688,000**	**199,297,000**	**75,779,000**	**29·0**	**81,493,000**
1943	**32,725,000**	**116**	**315,608,000**	**223,768,000**	**85,210,000**	**31·9**	**100,537,000**
1944	**37,245,000**	**116**	**360,948,000**	**253,937,000**	**99,470,000**	**29·4**[2]	**106,269,000**
1945	**37,929,000**	**118**	**373,952,000**	**266,851,000**[2]	**101,831,000**	**31·8**[2]	**118,947,200**[2]
1946	**35,006,500**	**119**	**346,841,000**	**253,730,100**	**93,110,900**	**33·5**	**116,158,700**
P.E.I.—							
1944	660,000	103	5,665,000	4,277,000	1,275,000	31·4	1,780,000
1945	695,000	110	6,371,000	4,772,000	1,433,000	31·0	1,974,600
1946	654,000	110	5,995,000	4,520,000	1,475,000	32·6	1,952,500
N.S.—							
1944	1,090,000	111	10,082,000	5,293,000	4,587,000	32·8	3,309,000
1945	1,065,000	115	10,206,000	5,358,000	4,644,000	36·0	3,649,900
1946	1,061,400	120	10,614,000	5,647,000	4,967,000	40·2	4,264,900
N.B.—							
1944	950,000	107	8,471,000	5,549,000	2,753,000	31·9	2,705,000
1945	991,000	111	9,167,000	6,008,000	2,979,000	35·0	3,224,300
1946	735,400	111	6,802,000	4,618,000	2,184,000	38·7	2,633,000
Que.—							
1944	5,392,000	118	53,022,000	31,018,000	20,944,000	31·9	16,901,000
1945	5,628,000	118	55,342,000	32,643,000[2]	21,860,000	34·0	18,718,100
1946	5,099,000	118	50,140,000	30,986,000	19,154,000	38·6	19,353,800
Ont.—							
1944	10,466,000	123	107,276,000	86,035,000	18,773,000	34·1	36,562,000
1945	11,457,000	125	119,344,000	97,454,000	20,885,000	37·0	44,208,000[2]
1946	11,101,800	125	115,644,000	95,984,000	19,660,000	35·7	41,327,900
Man.—							
1944	3,891,000	111	35,992,000	27,174,000	8,098,000	26·2	9,430,000
1945	4,111,000	112	38,370,000	29,343,000	8,633,000	28·0	10,740,700
1946	3,815,000	112	35,607,000	27,417,000	8,190,000	29·6	10,550,000
Sask.—							
1944	7,700,000	110	70,583,000	45,526,000	23,645,000	23·9	16,894,000
1945	7,051,000	110	64,634,000	41,377,000	21,652,000	25·5	16,427,200
1946	5,936,900	110	54,422,000	35,157,000	19,265,000	27·2	14,801,200
Alta.—							
1944	4,603,000	109	41,811,000	25,086,000	15,889,000	24·9	10,406,000
1945	4,473,000	115	42,866,000	25,720,000	16,289,000	25·5	10,853,600
1946	4,000,000	115	38,333,000	23,689,800	14,643,200	29·3	11,220,500
B.C.—							
1944	2,493,000	135	28,046,000	23,979,000	3,506,000	29·5	8,282,000
1945	2,458,000	135	27,652,000	24,176,000	3,456,000	33·0	9,150,800
1946	2,603,000	135	29,284,000	25,711,300	3,572,700	34·3	10,054,900

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[1] Includes eggs sold off farms, farm-home consumed and used for hatching purposes on farms. [2] Revised since the publication of the 1946 Year Book.

19.—Domestic Disappearance of Eggs and Poultry in Canada, 1941-46, and by Kind of Poultry, 1944-46

Type and Year	Farm Production[1]	Elsewhere Produced	Total Production	Total Supply	Domestic Disappearance	Per Capita Consumption[2]
	doz.	doz.	doz.	doz.	doz.	doz.
Eggs—						
1941	235,912,000	15,000,000	250,912,000	255,291,498	234,006,649	20·34
1942	270,865,000	15,000,000	285,865,000	290,900,527	256,788,735	22·03
1943	304,699,000	17,500,000	322,199,000	327,958,454	279,754,361	23·68
1944	348,316,000	20,000,000	368,316,000	375,428,000	291,681,103[3]	24·36
1945	360,864,000	20,000,000	380,864,000	407,908,000	283,219,436[3]	23·37
1946	328,210,900	20,000,000	348,210,900	366,724,300	296,699,700	24·12
	lb.	lb.	lb.	lb.	lb.	lb.
All Poultry—						
1941	220,007,000	14,895,000	234,902,000	247,289,308[4]	224,733,473[4]	19·53
1942	258,650,000	14,895,000	273,545,000	294,204,395[4]	274,198,343[4]	23·52
1943	265,308,000	16,000,000	281,308,000	295,870,885[4]	269,870,888[4]	22·85
1944	315,176,000	18,000,000	333,176,000	358,419,089[4]	315,156,514[4]	26·32
1945	307,089,400[3]	18,000,000	325,089,400[3]	349,738,603[3,4]	322,207,900[3,4]	26·59[3]
1946	305,877,100	18,000,000	323,877,100	344,329,000	311,092,900	25·29
Fowl and chickens—						
1944	272,340,000	16,400,000	288,740,000	307,963,808	270,037,094	22·55
1945	264,543,600	16,400,000	280,943,600	301,366,500	276,070,100[3]	22·78[3]
1946	266,390,400	16,400,000	282,790,400	297,859,300	269,094,800	21·88
Turkeys—						
1944	32,480,000	1,300,000	33,780,000	37,828,840	34,012,653	2·84
1945	32,438,400	1,300,000	33,738,400	37,503,400	35,532,900[3]	2·93
1946	29,994,000	1,300,000	31,294,000	36,524,800	32,227,900	2·62
Geese—						
1944	6,064,000	200,000	6,264,000	6,518,392	6,337,228	0·53
1945	5,911,000	200,000	6,111,000	6,281,800	6,167,700	0·51
1946	5,677,000	200,000	5,877,000	5,946,500	5,844,400	0·48
Ducks—						
1944	4,292,000	100,000	4,392,000	4,635,125	4,299,844	0·36
1945	4,196,400[3]	100,000	4,296,400[3]	4,586,900[3]	4,437,200[3]	0·37[3]
1946	3,815,700	100,000	3,915,700	3,998,400	3,925,800	0·31

[1] Excludes eggs used for hatching. [2] Based on estimates of population given at p. 100. [3] Revised since the publication of the 1946 Year Book. [4] Includes stocks of unclassified poultry and poultry in transit not shown in the various classifications.

Subsection 6.—Dairying

The development of dairying enterprises which commenced at the beginning of the War reached a peak in 1945. Milk production on farms was stimulated by producer subsidies during the entire war period, while payment of consumer subsidies tended to increase the sales of fluid milk for direct consumption. During the six-year period, 1939 to 1945, milk production increased approximately 1,800,000,000 lb. and the industry as a whole made an immense contribution to the food supplies of both Canada and the United Kingdom. After the collapse of Germany in May, 1945, production suffered from a reactionary development which became more pronounced after the final cessation of hostilities in August. The retreat from dairying in the Prairie Provinces following the bountiful harvest of 1944 with higher prices paid for grain and live stock, and the cumulative effects of the labour shortage, all played a part in halting the upward swing in dairying production in the Western domain. On the other hand, dairying continued to expand in Eastern Canada, so that no decline was shown in the total output for Canada until 1946.

A notable feature of the dairy situation is the shift in production in recent years; Western Canada is now contributing a larger share of the total. In 1920, Ontario and Quebec contributed approximately 67 p.c. of the total milk production of the Dominion; the Prairie Provinces produced 22 p.c., while the Maritimes and British Columbia shared to the extent of 9 p.c. and 2 p.c., respectively. By 1945 (the peak year), Ontario and Quebec were supplying only 62 p.c. of the milk production while the Prairie Provinces produced 28 p.c., the remaining 10 p.c. being divided between the Maritimes and British Columbia in the ratio of approximately 6 to 4.

Milk Production and Utilization.—The total production of milk reached a high point in 1945. In 1946, a decline of 790,000,000 lb. was recorded, reducing the total to 16,937,000,000 lb. During the 1920's and 1930's, the tendency in milk utilization was toward greater use of milk for fluid sales and for the production of factory dairy products, while that employed for manufacturing on farms declined. With the outbreak of war in 1939, this trend was accentuated due to an increase in the demand for fluid milk and to the payment of Government subsidies on creamery butter-fat (from July, 1942). In 1946, the proportion of the milk supply used for fluid sales was 25 p.c. as compared with an average (1941-45) of 21 p.c. On the other hand, factory dairy products absorbed 52 p.c. as compared with an average (1941-45) of 56 p.c. The percentage used on farms remained about the same at 23 p.c. All provinces showed reductions in milk production over 1945, the largest declines being in Prince Edward Island at 5·7 p.c., and Ontario at 5·3 p.c.

Butter Production.—Creamery butter production suffered a reduction in 1946 over 1945 of over 22,000,000 lb. or 7·6 p.c. Declines occurred in every province.

The dairy butter make of 54,225,000 lb. was approximately 900,000 lb. above the output of 1945, only Quebec and British Columbia having shown a reduced make. A point that should be noted, however, is that the Prairie Provinces continue to produce considerable quantities of dairy butter, most of which is made in Saskatchewan where the 1946 output represented 26 p.c. of the total production of Canada.

Cheese Production.—Cheddar cheese production in 1945 was the highest since 1942, being approximately 187,000,000 lb. as compared with 206,000,000 lb. in that year; in 1946 it declined to 143,509,000 lb. The total factory production of 147,320,000 lb. (including 3,811,000 lb. of cheese other than cheddar) in 1946 represented a decrease of 22 p.c. from that of 1945. Farm-made cheese amounted to 740,000 lb., being slightly less than that produced in 1945.

During recent years a wider range of cheese products has been manufactured in Canada. Roquefort and Cheshire types of cheese are now being produced in small quantities; Oka and Trappist cheese have been made in the Trappist monasteries for a number of years, and limited quantities of Limburger and lesser-known varieties are also being produced to meet the needs of a special trade. Processed cheese, a secondary product with cheddar cheese representing about 18 p.c. of the poundage, is another industry which has developed considerably during the past few years. In 1946, 26,000,000 lb. was manufactured in comparison with 12,000,000 lb. ten years ago. Then, too, greater use is being made of by-products from cheese. Lactose, which is made from milk-sugar crystals obtained from whey by a process of evaporation, is used for many purposes but it has gained special importance as a media for the growth of the mould from which penicillin is obtained.

Concentrated Milk Products.—Total production of all concentrated milk products combined in 1946 amounted to approximately 302,005,000 lb. as compared with an output of 299,265,000 lb. in the preceding year. In recent years there has been a greater demand for evaporated milk, condensed milk and whole-milk powder for export markets and larger quantities of these products are now being manufactured. Comparing the 1946 figures with those of 1939, evaporated milk moved from 116,885,000 lb., to 192,188,000 lb.; condensed milk from 7,571,000 to 31,257,000 lb., and whole-milk powder from approximately 6,584,000 lb. to 15,934,000 lb. Of the concentrated milk by-products, skim-milk powder is, of course, the most important item. The output of this product advanced from approximately 25,339,000 lb. to 42,246,000 lb. The remainder of the products increased approximately 84 p.c. in production as compared with 1939.

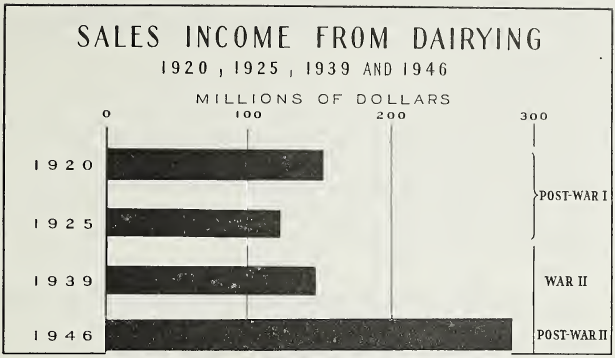
Ice Cream Production.—The output of ice cream was 15,783,000 gal. in 1946 as compared with 16,352,000 gal. in 1945. This decrease was due to the continuation of restrictions on the quantity manufactured for civilian use, which had been ordered during the war years to provide more cream for other purposes, and to the closing of military establishments during the past year.

Domestic Disappearance of Dairy Products.—Milk consumption statistics reveal the increasing popularity of this product as an article of food. Per capita consumption (including cream expressed as milk) has increased steadily from 0·87 pint per capita in 1939 to 1·01 pints in 1946.

The domestic disappearance of all butter, which was estimated at 33·12 lb. per capita in 1942, showed a reduction of nearly 5 lb. per capita in the following year as the result of butter rationing. In 1946 the estimated disappearance was 25·64 lb. per capita. Cheese, on the other hand, showed an almost continual increase from 1942 to 1945. In the latter year the per capita disappearance reached 5·06 lb., but in 1946 it fell to 4·15 lb., the lowest point in four years. During the past six years the disappearance of concentrated whole-milk products advanced from less than 11 lb. per capita to over 13 lb. in 1946.

Sales Income.—Farmers have been receiving large incomes from the sale of dairy products during the war years as a result of the subsidies and bonuses now paid by the Government. In 1945, the income from dairying amounted to $270,000,000 as compared with $148,000,000 at the commencement of the War in 1939. The relationship of dairy sales income to that of total farm income was only 12 p.c. in 1926; during the course of the next four years it moved up to 24 p.c., and reached the high point of 33 p.c. in 1931. As other lines of farming became more profitable, declines began to develop. In 1936 this relationship fell to 24 p.c. and, regardless of important advances in dairy production and prices, the 1946 income represented only 16 p.c. of the total farm income of Canada.

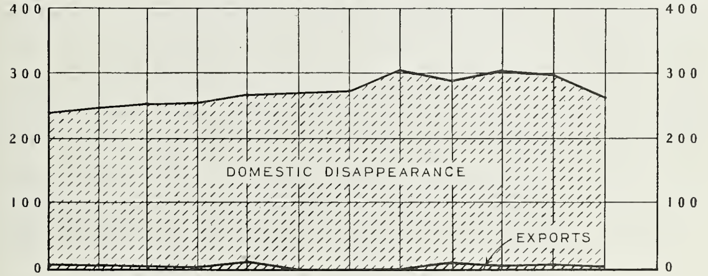
During the past twenty-six years, the trend in sales income from dairy products has been in two directions. In 1920 it stood at $153,000,000; sharp declines occurred in the two subsequent years and in 1922 it amounted to only $105,000,000. This was followed by several increases, and in 1928 it registered the highest point since



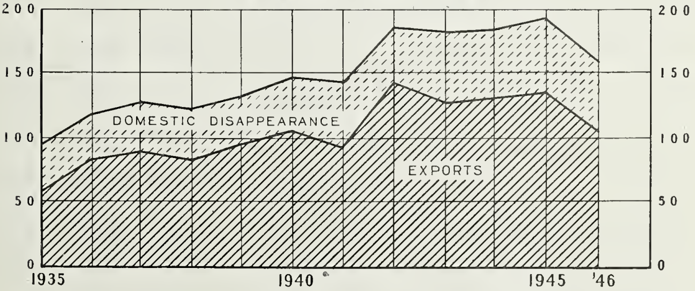
SALES INCOME FROM DAIRYING

1920, 1925, 1939 AND 1946

CREAMERY BUTTER



CHEDDAR CHEESE



1920, when farmers realized $121,000,000 from their dairy products. In 1930 it moved up to $150,000,000 but, owing to exceptionally low prices in the depression period which followed, it was reduced in 1932 to a figure comparable with that of 1928. From 1933 there has been an almost continual increase in income, reaching a total of $286,000,000 in 1946.

Value of Dairy Production.—The farm value of milk showed an increase of $23,000,000 in 1946 over 1945 and the total value of dairy products an increase of $22,000,000 in the same comparison. Farm value figures shown in Tables **26** and **28**, which include sales income and income in kind, reflect the extensions that have taken place in dairy farm undertakings. In 1946, 25 p.c. of the farm value of milk production originated in the Prairie Provinces while the two central provinces contributed 65 p.c.

20.—Production and Utilization of Milk in Canada, 1942-46, and by Provinces, 1945 and 1946

Note.—Figures for the years 1920-41 are given at p. 4 of the report "Dairying Statistics of Canada, 1946"; for the years 1939-41 at p. 237 of the 1946 Year Book.

Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Production
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Canada...............1942	**1,847,088**	**9,778,925**	**3,387,945**	**1,674,065**	**800,567**	**17,488,590**
1943	**1,305,596**	**10,008,382**	**3,706,513**	**1,714,112**	**784,370**	**17,518,973**
1944	**1,286,153**	**9,916,519**	**3,912,476**	**1,717,191**	**791,699**	**17,624,038**
1945	**1,256,709**	**9,849,786**	**4,007,858**	**1,716,296**	**796,123**	**17,626,772**
1946	**1,278,736**	8,853,260	**4,254,000**	**1,740,072**	**810,960**	**16,937,028**
Prince Edward Island.1945	11,540	114,216	21,175	26,151	7,337	180,419
1946	11,961	99,763	22,677	26,473	7,415	168,289
Nova Scotia...........1945	60,327	197,799	135,981	48,301	12,141	454,549
1946	60,937	188,558	136,524	48,687	13,040	447,746
New Brunswick........1945	105,854	104,185	82,743	65,122	13,771	461,675
1946	108,876	179,741	81,989	66,339	14,007	450,952
Quebec................1945	185,736	2,938,259	1,282,009	373,042	157,663	4,936,709
1946	183,322	2,675,724	1,351,919	374,101	162,108	4,747,174
Ontario...............1945	181,446	3,593,017	1,563,857	496,307	197,256	6,031,883
1946	183,485	3,156,218	1,664,338	506,374	203,220	5,713,635
Manitoba..............1945	131,703	692,190	190,656	140,255	75,789	1,230,593
1946	138,064	662,780	201,456	143,214	74,062	1,219,576
Saskatchewan..........1945	328,477	978,263	172,321	326,960	153,557	1,959,578
1946	335,941	883,352	187,970	331,879	156,440	1,895,582
Alberta...............1945	212,861	902,252	260,555	202,476	151,932	1,730,076
1946	217,454	799,931	281,806	204,848	153,634	1,657,673
British Columbia......1945	38,765	239,605	298,561	37,682	26,677	641,290
1946	38,696	207,193	325,321	38,157	27,034	636,401

21.—Production of Butter and Cheese in Canada, 1942-46, and by Provinces, 1945 and 1946

NOTE.—Figures for the years 1920-41 are given at p. 6 of the report "Dairying Statistics of Canada 1946"; for the years 1939-41 at p. 237 of the 1946 Year Book.

Province and Year	Butter			Cheese		
	Creamery	Dairy	Total	Factory[1]	Farm-made	Total
	lb.	lb.	lb.	lb.	lb.	lb.
Canada.............1942	**284,591,372**	**78,525,000**	**363,116,372**	**207,431,370**	**787,275**	**208,218,645**
1943	**311,709,476**	**55,407,000**	**367,116,476**	**166,274,217**	**760,500**	**167,034,717**
1944	**298,777,262**	**54,580,000**	**353,357,262**	**181,896,679**	**753,070**	**182,649,749**
1945	**293,811,000**	**53,283,000**	**347,094,000**	**188,729,000**	**744,000**	**189,473,000**
1946	**271,366,000**	**54,225,000**	**325,591,000**	**147,320,000**	**740,000**	**148,060,000**
Prince Edward Island.1945	4,324,000	492,000	4,816,000	1,052,000	1,000	1,053,000
1946	3,900,000	510,000	4,410,000	672,000	1,000	673,000
Nova Scotia...........1945	7,394,000	2,561,000	9,955,000	Nil	29,000	29,000
1946	6,973,000	2,587,000	9,560,000	"	29,000	29,000
New Brunswick........1945	7,425,000	4,516,000	11,941,000	1,194,000	4,000	1,198,000
1946	6,926,000	4,645,000	11,571,000	970,000	4,000	974,000
Quebec................1945	88,061,000	7,913,000	95,974,000	61,519,000	30,000	61,549,000
1946	85,427,000	7,810,000	93,237,000	42,082,000	30,000	42,112,000
Ontario................1945	77,630,000	7,670,000	85,300,000	115,937,000	156,000	116,093,000
1946	68,954,000	7,757,000	76,711,000	95,950,000	156,000	96,106,000
Manitoba..............1945	27,005,000	5,565,000	32,570,000	3,884,000	118,000	4,002,000
1946	26,067,000	5,837,000	31,904,000	3,259,000	117,000	3,376,000
Saskatchewan..........1945	41,074,000	13,952,000	55,026,000	401,000	142,000	543,000
1946	37,025,000	14,271,000	51,296,000	442,000	141,000	583,000
Alberta................1945	34,693,000	8,978,000	43,671,000	3,993,000	225,000	4,218,000
1946	30,764,000	9,175,000	39,939,000	3,256,000	223,000	3,479,000
British Columbia......1945	6,205,000	1,636,000	7,841,000	749,000	39,000	788,000
1946	5,330,000	1,633,000	6,963,000	689,000	39,000	728,000

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[1] Includes cheddar and other cheese made from whole milk. The latter, which amounted to 1,972,000 lb. in 1945 and 3,811,000 lb. in 1946, was produced in Quebec, Ontario, Manitoba, Saskatchewan and Alberta.

22.—Production of Concentrated Milk Products, 1942-46

NOTE.—Figures for the years 1920-41 are given at p. 10 of the report "Dairying Statistics of Canada 1946".

Item	1942	1943	1944	1945	1946
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Concentrated Whole-Milk Products—					
Evaporated milk..........................	185,762	178,368	184,344	200,529	192,188
Condensed milk...........................	23,076	26,915	31,021	28,582	31,257
Whole-milk powder........................	11,134	15,053	16,022	14,850	15,934
Miscellaneous whole milk-products	858	766	1,070	1,743	2,648
Totals, Concentrated Whole-Milk Products.........................	**220,830**	**221,102**	**232,457**	**245,704**	**242,027**
Concentrated Milk By-Products—					
Condensed skim milk.................	5,380	4,041	3,505	3,561	3,727
Evaporated skim milk................	1,613	1,632	2,413	2,373	3,207
Skim-milk powder....................	26,670	22,352	29,703	37,111	42,246
Condensed buttermilk................	292	1,648	2,400	2,549	2,501
Buttermilk powder...................	3,072	5,590	4,467	3,641	3,636
Casein..............................	3,199	3,112	2,961	3,683	4,183
Totals, Concentrated Milk By-Products[1]......................	**40,448**	**38,665**	**46,002**	**53,561**	**59,978**
Grand Totals..............	**261,278**	**259,767**	**278,459**	**299,265**	**302,005**

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[1] Includes lactose.

23.—Production of Ice Cream, by Provinces, 1942-46

NOTE.—Figures for the years 1920-41 are given at p. 12 of the report "Dairying Statistics of Canada, 1946".

Province	1942	1943	1944	1945	1946
	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
Prince Edward Island	69	82	100	83	63
Nova Scotia	941	1,060	1,147	1,057	915
New Brunswick	483	534	497	484	466
Quebec	2,890	3,252	3,309	3,254	3,176
Ontario	6,751	7,591	7,664	6,936	6,874
Manitoba	1,074	1,250	1,173	1,058	1,002
Saskatchewan	757	853	843	800	765
Alberta	1,018	1,133	1,162	1,042	997
British Columbia	1,243	1,488	1,771	1,638	1,525
Totals	**15,226**	**17,243**	**17,666**	**16,352**	**15,783**

24.—Estimated Consumption of Milk in Canada, 1942-46, and by Provinces, 1945 and 1946

NOTE.—Figures for the years 1920-41 are given at p. 14 of the report "Dairying Statistics of Canada, 1946"; for the years 1939-41 at p. 238 of the 1946 Year Book.

Province and Year		Milk and Cream Consumed (in Pints of Milk)			Per Capita Daily Consumption		
		Milk Producers	Non-Producers	Total	Milk Producers	Non-Producers	Total
		'000 pt.	'000 pt.	'000 pt.	pt.	pt.	pt.
Canada	**1942**	**1,300,750**	**2,553,463**	**3,854,213**	**1·42**	**0·77**	**0·91**
	1943	**1,331,866**	**2,793,565**	**4,125,431**	**1·45**	**0·82**	**0·96**
	1944	**1,333,740**	**2,947,652**	**4,281,392**	**1·45**	**0·85**	**0·98**
	1945	**1,330,462**	**3,013,661**	**4,344,123**	**1·46**	**0·86**	**0·98**
	1946	**1,348,893**	**3,198,744**	**4,547,637**	**1·45**	**0·90**	**1·01**
Prince Edward Island	1945	20,272	15,922	36,194	1·26	0·91	1·08
	1946	20,522	17,052	37,574	1·28	0·95	1·11
Nova Scotia	1945	37,443	102,249	139,692	0·83	0·56	0·62
	1946	37,742	102,657	140,399	0·82	0·56	0·61
New Brunswick	1945	50,482	62,218	112,700	1·01	0·52	0·66
	1946	51,425	61,651	113,076	1·01	0·50	0·65
Quebec	1945	289,180	963,991	1,253,171	1·14	0·92	0·96
	1946	290,001	1,016,559	1,306,560	1·13	0·96	0·99
Ontario	1945	384,734	1,175,924	1,560,658	1·84	0·94	1·07
	1946	392,538	1,251,479	1,644,017	1·85	0·98	1·11
Manitoba	1945	108,725	143,362	252,087	1·43	0·74	0·94
	1946	111,019	151,482	262,501	1·44	0·77	0·96
Saskatchewan	1945	253,457	129,575	383,032	1·84	0·76	1·25
	1946	257,270	141,342	398,612	1·84	0·82	1·27
Alberta	1945	156,958	195,921	352,879	1·46	1·01	1·17
	1946	158,797	211,901	370,698	1·46	1·08	1·21
British Columbia	1945	29,211	224,499	253,710	1·22	0·70	0·73
	1946	29,579	244,621	274,200	1·21	0·75	0·78

25.—Domestic Disappearance of Dairy Products, 1942-46

Year	BUTTER							
	Creamery		Dairy		Whey		Total Butter	
	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1942.......	304,721	26·15	78,543	6·74	2,682	0·23	385,946	33·12
1943.......	279,050	23·62	55,421	4·69	2,200	0·19	336,671	28·50
1944.......	299,405	25·00	54,574	4·56	2,745	0·23	356,724	29·79
1945.......	292,970	24·17	53,348	4·40	2,734	0·23	349,052	28·80
1946.......	258,741	21·04	54,277	4·41	2,305	0·19	315,323	25·64
	CHEESE							
	Cheddar		Other		Farm-Made		Total Cheese	
	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1942.......	43,000	3·69	2,036	0·17	787	0·07	45,823	3·93
1943.......	52,020	4·40	2,272	0·19	761	0·07	55,053	4·66
1944.......	51,889	4·33	2,349	0·20	753	0·06	54,991	4·59
1945.......	57,908	4·78	2,627	0·22	744	0·06	61,279	5·06
1946.......	45,184	3·67	5,178	0·42	740	0·06	51,102	4·15
	CONCENTRATED WHOLE-MILK PRODUCTS							
	Evaporated		Condensed		Powdered		Total[1]	
	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1942.......	142,660	12·24	8,978	0·77	7,954	0·68	160,449	13·77
1943.......	154,648	13·09	9,453	0·80	14,093	1·19	178,963	15·15
1944.......	130,949	10·94	10,251	0·85	13,395	1·12	155,028	12·95
1945.......	147,021	12·13	11,312	0·93	10,504	0·87	169,508	13·98
1946.......	146,408	11·90	12,439	1·01	10,420	0·85	170,314	13·84
	CONCENTRATED MILK BY-PRODUCTS							
	Evaporated		Condensed		Powdered		Total[2]	
	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per-Capita	Dis-appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1942.......	1,605	0·14	5,420	0·46	25,621	2·20	40,521	3·48
1943.......	1,643	0·14	3,994	0·34	22,772	1·93	39,618	3·35
1944.......	2,359	0·20	3,361	0·28	27,539	2·30	44,413	3·71
1945.......	2,424	0·20	3,638	0·30	31,914	2·63	48,496	4·00
1946.......	2,989	0·24	3,784	0·31	35,351	2·87	54,062	4·39
	FLUID MILK AND CREAM							
	Milk		Cream as Product		Cream as Milk		Total	
	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1942.......	3,802,060	326·25	170,040	14·59	1,018,312	87·38	4,820,372	413·63
1943.......	4,498,935	380·88	190,554	16·13	847,495	71·75	5,346,430	452·63
1944.......	4,631,748	386·78	212,316	17·73	880,545	73·53	5,512,293	460·31
1945.......	4,864,615	401·41	194,262	16·03	739,303	61·00	5,603,918	462·41
1946.......	5,106,110	415·13	199,790	16·24	760,342	61·82	5,866,452	476·95

For footnotes, see end of table, p. 364.

25.—Domestic Disappearance of Dairy Products, 1942-46—concluded

Year	ALL DAIRY PRODUCTS IN TERMS OF MILK							
	Butter		Cheese		Concentrated Whole Milk		Total[3]	
	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita	Dis-appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1942	**8,972,211**	**769·88**	**513,217**	**44·04**	**401,801**	**34·48**	**14,946,801**	**1,282·55**
1943	**7,829,966**	**662·88**	**616,593**	**52·20**	**478,496**	**40·51**	**14,542,373**	**1,231·15**
1944	**8,286,648**	**692·00**	**615,899**	**51·43**	**420,833**	**35·14**	**15,113,222**	**1,262·06**
1945	**8,114,231**	**669·55**	**682,648**	**56·33**	**436,800**	**36·04**	**15,071,267**	**1,243·61**
1946	**7,334,012**	**596·26**	**569,277**	**46·28**	**439,230**	**35·71**	**14,434,510**	**1,173·54**

[1] Includes malted milk and cream powder in 1942-46, and condensed coffee in 1942, items which do not appear separately in this table. [2] Includes milk by-products not separately listed, including condensed buttermilk, powdered buttermilk, sugar of milk, and casein in 1942-46, and sub-standard products in 1944-46. [3] Includes ice cream in terms of milk; on a per capita basis the 1946 disappearance amounted to 1·28 gal. of the product and 18·34 lb. expressed as milk.

26.—Value of Farm Milk Production in Canada, 1942-46, and by Provinces, 1945 and 1946

NOTE.—Figures for the years 1920-41 are given at p. 17 of the report "Dairying Statistics of Canada 1946"; for the years 1939-41 at p. 240 of the 1946 Year Book.

Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Pro-duction
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	$'000	$'000	$'000	$'000	$'000	$'000
Canada.... 1942	**25,285**	**134,861**	**72,714**	**23,862**	**11,390**	**268,112**
1943	**19,826**	**152,905**	**84,650**	**27,046**	**12,422**	**296,849**
1944	**19,770**	**165,400**	**98,109**	**29,008**	**13,418**	**325,705**
1945	**18,915**	**163,226**	**102,981**	**30,680**	**14,152**	**329,954**
1946	**21,305**	**162,771**	**118,460**	**34,513**	**15,991**	**353,040**
Prince Edward Island. 1945	172	1,822	466	510	143	3,113
1946	197	1,810	528	543	152	3,230
Nova Scotia.... 1945	966	3,497	4,067	918	231	9,679
1946	1,075	3,456	4,279	998	267	10,075
New Brunswick.... 1945	1,708	3,253	2,382	1,231	260	8,834
1946	1,910	3,300	2,442	1,393	294	9,339
Quebec.... 1945	2,904	48,780	31,993	6,864	2,901	93,442
1946	3,132	49,951	36,967	7,669	3,323	101,042
Ontario.... 1945	2,748	63,601	40,520	9,033	3,590	119,492
1946	3,176	61,908	47,184	10,279	4,125	126,672
Manitoba.... 1945	1,883	10,342	4,445	2,384	1,288	20,342
1946	2,171	11,067	5,341	2,678	1,385	22,642
Saskatchewan.... 1945	4,718	14,489	4,076	5,493	2,580	31,356
1946	5,440	14,491	4,770	6,239	2,941	33,881
Alberta.... 1945	3,153	13,414	6,362	3,584	2,689	29,202
1946	3,551	13,056	7,345	3,974	2,980	30,906
British Columbia.... 1945	663	4,028	8,670	663	470	14,494
1946	653	3,732	9,604	740	524	15,253

27.—Values of the Dairy Products of Canada, 1942-46, and by Provinces, 1945 and 1946

NOTE.—Figures for the years 1920-41 are given at p. 18 of the report "Dairying Statistics of Canada, 1946"; for the years 1939-41 at p. 240 of the 1946 Year Book.

Province and Year	Butter		Cheese		Miscellaneous Products	Milk Otherwise Used	Skim Milk, Buttermilk and Whey	Total Value
	Creamery	Dairy	Factory	Farm-made				
	$	$	$	$	$	$	$	$
Canada..1942	**97,741,000**	**24,671,000**	**44,942,000**	**160,000**	**47,856,000**	**134,057,000**	**17,447,000**	**366,874,000**
1943	**105,104,000**	**19,666,000**	**38,902,000**	**160,200**	**49,200,000**	**142,756,000**	**19,615,000**	**375,403,200**
1944	**101,536,000**	**19,614,000**	**42,140,000**	**156,200**	**54,692,000**	**155,977,000**	**18,912,000**	**393,027,200**
1945	**101,405,000**	**18,756,000**	**42,734,000**	**159,000**	**52,983,000**	**164,930,000**	**18,960,000**	**399,927,000**
1946	**104,651,000**	**21,144,000**	**37,809,000**	**161,000**	**52,983,000**	**187,779,000**	**17,440,000**	**421,967,000**
P.E.I....1945	1,538,000	172,000	246,000	[1]	111,000	1,220,000	278,000	3,565,000
1946	1,580,000	197,000	166,000	[1]	87,000	1,335,000	251,000	3,616,000
N.S......1945	2,816,000	960,000	Nil	6,000	1,723,000	5,661,000	559,000	11,725,000
1946	2,894,000	1,068,000	"	7,000	1,671,000	6,087,000	624,000	12,351,000
N.B......1945	2,721,000	1,707,000	267,000	1,000	647,000	4,146,000	729,000	10,218,000
1946	2,840,000	1,909,000	233,000	1,000	643,000	4,445,000	722,000	10,793,000
Que......1945	30,575,000	2,896,000	14,262,000	8,000	12,178,000	47,761,000	5,228,000	112,908,000
1946	33,317,000	3,124,000	11,112,000	8,000	13,020,000	54,208,000	4,783,000	119,572,000
Ont......1945	27,520,000	2,715,000	25,159,000	33,000	28,250,000	58,982,000	5,265,000	147,924,000
1946	27,237,000	3,142,000	23,906,000	34,000	28,113,000	68,094,000	4,455,000	154,981,000
Man......1945	9,003,000	1,859,000	1,333,000	24,000	1,399,000	9,020,000	1,481,000	24,119,000
1946	9,853,000	2,148,000	1,107,000	23,000	1,349,000	10,381,000	1,443,000	26,304,000
Sask.....1945	13,559,000	4,688,000	178,000	30,000	1,006,000	13,177,000	2,460,000	35,098,000
1946	13,514,000	5,409,000	213,000	31,000	936,000	15,075,000	2,294,000	37,472,000
Alta......1945	11,390,000	3,106,000	1,131,000	47,000	2,420,000	14,086,000	2,659,000	34,839,000
1946	11,337,000	3,505,000	917,000	46,000	2,343,000	15,945,000	2,605,000	36,698,000
B.C......1945	2,283,000	653,000	158,000	10,000	5,249,000	10,877,000	301,000	19,531,000
1946	2,079,000	642,000	155,000	11,000	4,821,000	12,209,000	263,000	20,180,000

[1] Since the figures in this table are rounded to thousands, the estimated value of farm-made cheese in Prince Edward Island, which amounted to $200 in both 1945 and 1946, is not shown.

28.—Values of Production, Cost of Milk at Plants, and Income from Dairying, 1942-46, and by Provinces, 1945 and 1946

NOTE.—The first two columns of this table represent values based on total production, the entire milk supply being accounted for in each case. The third column is the cost of milk delivered for fluid and for manufactured purposes; while the fourth column represents the income received from the sale of milk, butterfat and dairy butter. Figures for the years 1920-41 are given at p. 19 of the report "Dairying Statistics of Canada, 1946"; for the years 1939-41 at p. 241 of the 1946 Year Book.

Province and Year	Total Value of Dairy Products	Farm Value of Milk Production	Cost of Milk Delivered at Plants	Sales Income from Dairying	Per Hundredweight of Milk			
					Total Value	Farm Value	Plant Cost	Sales Income
	$'000	'$000	$'000	$'000	$	$	$	$
Canada..............1942	**366,873**	**268,112**	**204,823**	**218,927**	**2·10**	**1·53**	**1·56**	**1·57**
1943	**375,403**	**296,849**	**216,315**	**243,361**	**2·14**	**1·69**	**1·58**	**1·73**
1944	**393,027**	**325,705**	**228,363**	**268,305**	**2·23**	**1·85**	**1·65**	**1·90**
1945	**399,927**	**329,954**	**234,126**	**269,875**	**2·27**	**1·87**	**1·69**	**1·91**
1946	**421,967**	**353,040**	**250,984**	**285,599**	**2·49**	**2·08**	**1·91**	**2·14**
Prince Edward Island 1945	3,565	3,113	1,985	2,314	1·98	1·73	1·47	1·69
1946	3,616	3,230	2,061	2,357	2·15	1·92	1·68	1·91
Nova Scotia..........1945	11,725	9,679	6,767	7,984	2·58	2·13	2·03	2·22
1946	12,351	10,075	7,097	8,079	2·76	2·25	2·18	2·34
New Brunswick......1945	10,218	8,834	4,935	6,351	2·21	1·91	1·78	1·98
1946	10,793	9,339	5,118	6,087	2·39	2·07	1·96	2·16
Quebec...............1945	112,908	93,442	71,998	81,414	2·29	1·89	1·71	1·91
1946	119,572	101,042	78,174	88,424	2·52	2·13	1·94	2·15
Ontario...............1945	147,924	119,492	90,800	104,726	2·45	1·98	1·76	2·02
1946	154,981	126,672	96,464	109,567	2·71	2·22	2·00	2·26
Manitoba.............1945	24,119	20,342	12,889	14,984	1·96	1·65	1·46	1·67
1946	26,304	22,642	14,555	16,590	2·16	1·86	1·68	1·89
Saskatchewan........1945	35,098	31,356	15,762	19,012	1·79	1·60	1·37	1·61
1946	37,472	33,881	16,741	19,996	1·98	1·79	1·56	1·79
Alberta...............1945	34,839	29,202	17,373	20,037	2·01	1·69	1·49	1·70
1946	36,698	30,906	18,288	20,909	2·21	1·86	1·69	1·88
British Columbia.....1945	19,531	14,494	11,617	13,053	3·05	2·26	2·16	2·34
1946	20,180	15,253	12,486	13,590	3·17	2·40	2·34	2·48

Subsection 7.—Horticulture

Annual statistics of commercial horticulture are now confined to production and value of fruits. Until 1943 a survey of the floriculture and nursery-stock industry was conducted annually, but as a wartime measure the collection and publication of this information was suspended. No estimates of the acreage and annual production of vegetables are as yet available but an attempt is being made to collect this information for the major crops. Details of acreage production, and value of all the common vegetables grown in 1940 and 1941 will be found in a series of bulletins issued by the Census Division of the Bureau of Statistics.

Fruit Production.—The production of fruit in Canada on a commercial scale is confined to the Provinces of Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. Fruit production in each of these Provinces is concentrated for the most part in fairly well defined sections. In Nova Scotia, for example, the Counties of Annapolis and Kings—the Annapolis Valley—and to a lesser extent Hants County are the main fruit-producing areas. In New Brunswick there are two chief centres for fruit growing, the most important being St. John River Valley, which includes the Counties of Queens, Kings, Sunbury and York. The other district is located in Westmorland County adjacent to Nova Scotia. The fruit areas in Quebec can be roughly divided as follows: the Montreal area including Montreal and Jesus Islands; the North Shore area including the Counties of L'Assomption, Terrebonne and Two Mountains; the Eastern Townships including Châteauguay, Huntingdon, St. Jean, Missisquoi and Rouville Counties; and the Quebec City district including the Counties of Portneuf, Montmorency, Lévis, Bellechasse, L'Islet and Quebec. In Ontario, the fruit-producing area is much more widespread and is located in the counties adjacent to the St. Lawrence River and the Great Lakes as far as Georgian Bay. The most famous fruit section is the Niagara district which includes Welland and Lincoln Counties. There are two other well-known sections: the north shore of Lake Ontario and the St. Lawrence River including the Counties of Dundas, Grenville, Leeds, Hastings, Prince Edward, Lennox and Addington, Northumberland, Durham and Ontario; and the equally well-known section in the Georgian Bay district, including the Counties of Grey, Bruce and Simcoe. In British Columbia there are four well-defined areas of fruit production, the most extensive and best known is the Okanagan Valley. In addition, there are the Fraser Valley, the Kootenay and Arrow Lakes section and Vancouver Island.

29.—Estimated Commercial Production and Shipping-Point Values of Fruit, 1940-45, with Five-Year Averages, 1935-39

Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity
	bu.	lb.	$	$
Apples—				
Av. 1935-39	14,560,000	655,191,000	10,978,000	0·75
1940	12,865,000	578,925,000	8,779,000	0·68
1941	10,725,000	482,625,000	9,472,000	0·88
1942	12,982,000	584,190,000	14,390,000	1·11
1943	12,854,000	578,430,000	16,814,000	1·31
1944	17,829,000	802,305,000	22,807,000	1·28
1945	7,635,000	343,575,000	12,857,000	1·65

29.—Estimated Commercial Production and Shipping-Point Values of Fruit, 1940-45, with Five-Year Averages, 1935-39—concluded

Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity
	bu.	lb.	$	$
Pears—				
Av. 1935-39	569,000	28,450,000	701,000	1·23
1940	650,000	32,500,000	800,000	1·23
1941	732,000	36,600,000	1,137,000	1·55
1942	753,000	37,650,000	1,429,000	1·90
1943	637,000	31,850,000	1,462,000	2·30
1944	894,000	44,700,000	2,007,000	2·24
1945	600,000	30,000,000	1,582,000	2·60
Plums and Prunes—				
Av. 1935-39	264,000	13,200,000	318,000	1·20
1940	253,000	12,650,000	338,000	1·34
1941	536,000	26,800,000	822,000	1·53
1942	377,000	18,850,000	737,000	1·95
1943	364,000	18,200,000	1,133,000	3·11
1944	503,000	25,150,000	1,375,000	2·73
1945	486,000	24,300,000	1,270,000	2·84
Peaches—				
Av. 1935-39	1,023,000	51,170,000	1,473,000	1·44
1940	1,345,000	67,250,000	1,919,000	1·43
1941	1,579,000	78,950,000	2,808,000	1·78
1942	2,003,000	100,150,000	3,505,000	1·75
1943	633,000	31,650,000	2,079,000	3·28
1944	1,698,000	84,900,000	4,534,000	2·67
1945	1,566,000	78,300,000	4,502,000	2·95
Apricots—				
Av. 1935-39	50,000	2,510,000	104,000	2·08
1940	68,000	3,400,000	148,000	2·18
1941	76,000	3,800,000	154,000	2·03
1942	98,000	4,900,000	227,000	2·32
1943	25,000	1,250,000	102,000	4·08
1944	146,000	7,300,000	489,000	3·35
1945	87,000	4,350,000	319,000	3·49
Cherries—				
Av. 1935-39	210,000	10,500,000	556,000	2·65
1940	172,000	8,600,000	598,000	3·48
1941	347,000	17,350,000	1,413,000	4·07
1942	364,000	18,200,000	1,587,000	4·36
1943	216,000	10,800,000	1,545,000	7·15
1944	285,000	14,250,000	1,909,000	6·70
1945	237,000	11,850,000	1,724,000	8·01
Strawberries—	qt.			
Av. 1935-39	25,493,000	31,866,000	2,104,000	0·07
1940	28,496,000	35,620,000	2,044,000	0·07
1941	24,053,000	30,066,000	2,211,000	0·09
1942	17,779,000	22,224,000	2,057,000	0·12
1943	16,310,000	20,387,500	3,337,000	0·21
1944	10,922,000	13,652,000	2,303,000	0·21
1945	16,726,000	20,907,500	4,186,000	0·24
Raspberries—				
Av. 1935-39	9,157,000	11,446,750	953,000	0·10
1940	12,090,000	15,112,500	1,214,000	0·10
1941	8,210,000	10,262,500	1,156,000	0·14
1942	9,331,000	11,663,750	1,664,000	0·18
1943	10,092,000	12,615,000	2,708,000	0·26
1944	10,806,000	13,508,000	2,682,000	0·25
1945	12,548,000	15,685,000	3,147,000	0·26
Loganberries—	lb.			
Av. 1935-39	1,483,000	1,483,000	100,000	0·07
1940	1,886,000	1,886,000	100,000	0·05
1941	1,583,000	1,583,000	112,000	0·07
1942	1,534,000	1,534,000	153,000	0·10
1943	1,313,000	1,313,000	153,000	0·12
1944	1,660,000	1,660,000	196,000	0·12
1945	1,447,000	1,447,000	140,000	0·14
Grapes—				
Av. 1935-39	42,818,000	42,818,000	793,000	0·02
1940	52,727,000	52,727,000	1,038,000	0·02
1941	47,151,000	47,151,000	1,252,000	0·03
1942	74,913,000	74,913,000	1,862,000	0·02
1943	53,763,000	53,763,000	1,733,000	0·03
1944	60,862,000	60,862,000	2,380,000	0·04
1945	66,012,000	66,012,000	2,543,000	0·04

30.—Values and Weight of Commercial Fruit Produced, by Provinces, 1940-45, with Five-Year Averages, 1935-39

Note.—Values for 1926-39 are given at p. 228 of the 1945 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	British Columbia	Total
			VALUES			
	$	$	$	$	$	$
Av. 1935-39	3,812,200	247,400	1,509,800	5,486,400	7,024,000	18,079,800
1940	2,285,000	257,000	1,574,000	5,722,000	7,140,000	16,978,000
1941	2,869,000	374,000	1,530,000	7,650,000	8,114,000	20,537,000
1942	3,438,000	404,000	2,183,000	9,703,000	11,928,000	27,656,000
1943	4,650,000	678,000	2,416,000	10,476,000	12,846,000	31,066,000
1944	5,063,000	436,000	1,834,000	12,065,000	21,284,000	40,682,000
1945	1,449,000	531,000	953,000	9,567,000	19,770,000	32,270,000
			WEIGHT			
	lb.	lb.	lb.	lb.	lb.	lb.
Av. 1935-39	267,171,000	8,158,000	37,422,000	235,856,000	300,027,000	848,634,000
1940	158,545,000	8,889,000	54,518,000	258,839,000	327,880,000	808,671,000
1941	157,920,000	11,164,000	41,800,000	247,795,000	276,509,000	735,188,000
1942	179,114,000	12,705,000	60,368,000	292,272,000	329,816,000	874,275,000
1943	221,113,000	16,300,000	49,017,000	223,353,000	250,475,000	760,258,000
1944	239,564,000	13,942,000	44,137,000	278,240,000	494,003,000	1,069,886,000
1945	52,291,000	8,885,000	8,850,000	152,290,000	374,111,000	596,427,000

Subsection 8.—Special Agricultural Crops

Maple Sugar and Syrup.—Maple sugar and syrup production in 1946 improved somewhat from the unusually small crop of 1945. Production of both sugar and syrup, expressed as syrup, amounted to 2,144,000 gal. compared with 1,530,000 gal. The 1946 crop, however, was still considerably below the ten-year average level of 2,606,000 gal. The season opened early in March and lasted well into April. Sap was very sweet and the quality of both sugar and syrup was better than usual. In Quebec, where the bulk of the crop is produced, the season lasted for approximately 50 days. Warm weather at the end of March prompted some producers to collect and store their equipment but others who re-tapped made good quantities of syrup in April. Prices received for both sugar and syrup were, for the most part, at or near the ceiling and average prices remained practically unchanged from 1945.

31.—Estimated Quantities and Values of Maple Sugar and Maple Syrup Produced in Canada, 1940-46, and by Provinces, 1944-46

Province and Year	Maple Sugar			Maple Syrup			Total Value, Sugar and Syrup
	Quantity[1]	Average Price per Pound	Value[1]	Quantity[1]	Average Price per Gallon	Value[1]	
	lb.	cts.	$	gal.	$	$	$
Nova Scotia—							
1944	44,000	35·0	16,000	8,000	3·56	30,000	46,000
1945	18,000	42·0	8,000	4,000	3·50	14,000	22,000
1946	20,000	42·0	8,000	6,000	3·50	21,000	29,000
New Brunswick—							
1944	99,000	35·0	35,000	12,000	3·56	41,000	76,000
1945	91,000	42·0	38,000	8,000	3·77	31,000	69,000
1946	68,000	42·0	29,000	10,000	3·77	38,000	67,000
Quebec—							
1944	2,034,000	26·0	529,000	2,339,000	2·91	6,806,000	7,335,000
1945	1,804,000	26·0	469,000	1,203,000	2·95	3,549,000	4,018,000
1946	2,448,000	27·0	661,000	1,638,000	2·92	4,783,000	5,444,000
Ontario—							
1944	30,000	35·0	11,000	511,000	3·11	1,589,000	1,600,000
1945	7,000	35·0	2,000	123,000	3·15	387,000	389,000
1946	7,000	35·0	2,000	235,000	3·15	740,000	742,000
Totals—							
1940	**3,438,000**	**15·0**	**530,000**	**2,755,000**	**1·34**	**3,679,000**	**4,209,000**
1941	**2,390,000**	**17·5**	**418,000**	**2,037,000**	**1·54**	**3,143,000**	**3,561,000**
1942	**3,737,000**	**20·0**	**750,000**	**2,877,000**	**2·07**	**5,966,000**	**6,716,000**
1943	**2,416,000**	**25·5**	**619,000**	**2,058,000**	**2·49**	**5,131,000**	**5,750,000**
1944	**2,207,000**	**26·7**	**591,000**	**2,870,000**	**2·95**	**8,466,000**	**9,057,000**
1945	**1,920,000**	**26·9**	**517,000**	**1,338,000**	**2·98**	**3,981,000**	**4,498,000**
1946	**2,543,000**	**27·5**	**700,000**	**1,889,000**	**2·96**	**5,582,000**	**6,282,000**

[1] To nearest thousand.

Sugar Beets and Beetroot Sugar.—Sugar beets are grown in Quebec, Ontario, Manitoba and Alberta, six beet-sugar factories being located in these Provinces. In Quebec, sugar beets have been grown only since 1942 and production centres around St. Hilaire, south of Montreal in the Eastern Townships. The area harvested in Quebec in 1945 was 1,425 acres although the plant at St. Hilaire has a capacity to handle production from 10,000 acres. In Ontario, sugar-beet factories are located at Wallaceburg and Chatham. The acreage in Ontario has declined steadily from 38,169 in 1940 to only 9,287 in 1943. Since that year, however, the acreage has again expanded and in 1945 17,661 acres were cropped, though production still remained well below the capacity of the two plants and only the Chatham factory processed beets in 1945. Sugar-beet production in Manitoba also declined during the war years. In 1940 the area harvested was 15,682 acres while in 1945 the area amounted to only 9,827 acres. The sugar-beet plant in Manitoba is located at Fort Garry. Sugar-beet production in Alberta is carried on in the neighbourhood of Raymond and Picture Butte. This area has seen a steady increase during the past six years with the acreage in 1945 amounting to 30,344 acres.

32.—Acreages, Yields and Values of Sugar Beets, and Quantities and Values of Refined Beetroot Sugar Produced, 1938-45

NOTE.—Figures for the years 1911-20 will be found at p. 1057 of the 1932 Year Book; for 1921-30 at p. 257 of the 1933 edition; and for 1931-37 at p. 222 of the 1942 edition.

Year	Sugar Beets					Refined Beetroot Sugar Produced		
	Seeded Area	Yield per Acre	Total Yield	Average Price per Ton	Total Value	Quantity	Value	Price per Pound
	acres	tons	tons	$	$	lb.	$	cts.
1938	45,322	10·99	498,102	6·83	3,403,635	143,013,847	6,001,380	4·2
1939	59,603	9·84	586,444	7·53	4,417,372	169,320,343	8,063,332	4·8
1940	82,270	10·03	825,344	7·30	6,022,670	213,602,511	10,853,665	5·1
1941	70,803	10·01	708,616	8·16	5,781,151	215,879,271	11,639,825	5·4
1942	64,768	10·84	701,884	9·17	6,434,517	189,066,870	11,349,746	6·0
1943	57,483	8·25	474,378	9·68	4,592,240	129,268,010	8,728,995	6·8
1944	70,446	8·02	564,927	9·91	5,598,393	165,318,840	11,281,052	6·8
1945	63,134	10·44	618,790	10·01	6,192,942	163,837,790	11,198,989	6·8

Fibre Flax.—Table 33 shows that under the stimulus of the wartime demand for fibre-producing crops, the area devoted to this crop increased from 10,536 acres in 1939 to 47,070 acres in 1942. Through action of the Agricultural Supplies Board, the entire industry is on a mechanized basis, and mill-processing machinery as well as mechanical pullers and lifters for field work are now manufactured in Canada. Canadian flax fibre and tow find a ready market in the United Kingdom and the United States.

The prospect of high returns encouraged many inexperienced growers to seed flax on poor land in 1942. With the low yields in 1942 and 1943 enthusiasm waned, growers preferring to plant crops with more certain yields and higher cash returns. In 1944 the season was late and it was not until the end of June that much of the crop was planted. While the area in 1944 was greater than in 1943, yields on the late-sown acreage were disappointing. Spring weather in 1945 was also backward but after the experience of 1944 there was little late seeding, the acreage, as a result, was down considerably. A further sharp reduction was shown in 1946.

33.—Acreages, Yields and Values of Flaxseed, Fibre and Tow, 1938-46

NOTE.—Figures for the years 1915-30 will be found at p. 284 of the 1934-35 Year Book, and for 1931-37 at p. 224 of the 1942 edition.

Year	Area	Production			Values			
		Seed	Fibre	Green Tow	Seed	Fibre	Green Tow	Total
	acres	bu.	lb.	tons	$	$	$	$
1938	10,225	77,992	2,662,000	2,246	189,750	241,850	87,000	518,600
1939	10,536	63,216	4,079,600	2,230	245,700	914,100	89,200	1,249,000
1940	20,275	81,300	5,977,500[1]	1,027	345,925	1,315,050[1]	65,600	1,726,575
1941	44,467	137,930	11,000,000[1]	755	482,750	2,597,500[1]	37,750	3,118,000
1942	47,070	195,915	9,312,000	875	439,827	2,528,228	33,645	3,001,700
1943	35,297	157,957	8,742,000[2]	815	631,828	1,970,400	48,900	2,651,128
1944	39,102	122,487	5,768,000	1,015	502,948	1,555,600	50,800	2,109,348
1945	21,557	68,747	6,000,000	650	343,700	1,775,000	42,300	2,161,000
1946[3]	15,762	81,000	3,400,000	Nil	405,000	821,000	–	1,226,000

[1] Including turbine tow. [2] Includes estimated production from 8,040 acres carried over from previous processing year. [3] Subject to revision.

Tobacco.—Production of tobacco in 1945 amounted to 92,345,000 lb., a 12 p.c. decline from the near record crop of 105,415,500 lb. produced in 1944. The area planted in 1945 was 93,277 acres as compared with 88,495 acres in 1944, and the reduction in output was the result of a poor growing season and consequent lower yields per acre. The average price paid to farmers for leaf tobacco showed a substantial advance at an average of 33·2 cents per lb. compared with 29·4 cents per lb. during the previous season. All types, with the exception of pipe tobacco, brought higher average returns.

34.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, 1938-45

NOTE.—Figures for representative years 1900-28 are given at p. 228 of the 1939 Year Book, and for the years 1929-37 at p. 225 of the 1940 edition.

Year	Planted Area	Average Yield per Acre	Total Production	Average Farm Price per Pound	Gross Farm Value
	acres	lb.	lb.	cts.	$
1938	83,575	1,213	101,394,600	20·0	20,269,700
1939	92,300	1,167	107,703,400	18·1	19,443,800
1940	67,880	943	64,019,600	17·3	11,086,300
1941	70,560	1,335	94,182,500	20·5	19,337,500
1942	78,730	1,139	89,699,400	24·0	21,539,100
1943	71,140	971	69,103,900	28·4	19,646,200
1944	88,495	1,191	105,415,500	29·4	31,001,900
1945	93,277	990	92,345,000	33·2	30,620,000

35.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Provinces, 1938-45

NOTE.—Figures for the years 1934-37 will be found at p. 229 of the 1939 Year Book.

Year	Quebec			Ontario			British Columbia		
	Planted Area	Production	Value	Planted Area	Production	Value	Planted Area	Production	Value
	acres	'000 lb.	$	acres	'000 lb.	$	acres	'000 lb.	$
1938	9,980	10,900	1,157,000	73,215	90,099	19,057,400	380	395	55,300
1939	14,330	13,221	1,655,500	77,660	94,162	17,741,900	310	320	46,400
1940	13,980	13,144	1,679,400	53,450	50,368	9,307,900	450	508	99,000
1941	12,470	9,541	1,154,600	57,450	83,875	18,042,700	640	766	140,200
1942	10,540	9,474	1,530,200	67,830	79,852	19,934,300	360	373	74,600
1943	7,580	6,512	1,477,900	63,340	62,325	18,104,600	220	267	63,700
1944	8,984	8,898	2,413,800	79,359	96,375	28,550,000	152	143	38,100
1945	10,007	9,391	2,784,000	83,140	82,798	27,785,000	130	156	51,000

36.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Main Types, 1939-45

Type and Year		Planted Area	Average Yield per Acre	Total Production	Average Farm Price per Pound	Gross Farm Value
		acres	lb.	lb.	cts.	$
Flue-cured	1939	69,840	1,142	79,734,400	20·2	16,114,000
	1940	48,610	865	42,027,500	20·6	8,655.300
	1941	55,370	1,359	75,242,900	22·5	16,920,300
	1942	63,980	1,123	71,856,600	26·2	18,817,700
	1943	60,120	978	58,785,800	30·0	17,638,700
	1944	73,697	1,176	86,669,000	30·7	26,634,100
	1945	77,200	976	75,353,000	34·9	26,311,000
Burley	1939	11,190	1,363	15,248,000	13·7	2,095,100
	1940	9,710	1,217	11,818,100	12·2	1,440,600
	1941	7,060	1,410	9,965,400	14·6	1,450,600
	1942	7,820	1,306	10,220,600	17·0	1,737,400
	1943	6,540	1,008	6,590,800	21·3	1,402,800
	1944	9,460	1,292	12,223,000	23·2	2,830,000
	1945	9,442	1,094	10,330,000	25·6	2,641,000
Cigar leaf	1939	4,600	1,128	5,190,000	10·2	529,100
	1940	4,370	1,074	4,693,800	10·4	490,400
	1941	3,860	1,058	4,082,500	10·6	432,200
	1942	3,750	1,120	4,199,000	13·0	544,400
	1943	2,650	857	2,270,000	15·0	340,500
	1944	2,400	1,240	2,976,000	21·0	624,900
	1945	3,093	1,067	3,300,000	24·2	800,000

Apiculture.—Keeping of bees in Canada is as much an industry as any other form of Canadian enterprise and has, in some cases, developed into a 'big business' involving more than a thousand colonies producing many thousands of pounds of honey. Annual statistics of honey production have been published since 1924 when 22,200 beekeepers were engaged in producing honey. Since then the number has almost doubled and in 1945 there were 43,300 beekeepers. Ontario continues to be the chief honey-producing province and normally contributes about one-half of Canada's total. In 1945, however, Ontario produced only 27 p.c. of the total followed by Saskatchewan with 22 p.c., Alberta with 18 p.c., Manitoba with 15 p.c., Quebec with 14 p.c., British Columbia with 3 p.c. and the Maritime Provinces with 1 p.c. The farm value of the Canadian honey crop in 1945 was estimated at $5,439,000. While this was 11 p.c. below the value of production in 1943, it was 60 p.c. higher than the five-year 1938-42 average of $3,392,000. The average price received by producers showed a further increase in 1945 to 16 cents per lb., compared with 15 cents per lb. in 1944.

37.—Beekeepers and Colonies, Production and Values of Honey and Beeswax, 1938-45

Note.—Statistics by provinces are shown in the "Quarterly Bulletin of Agricultural Statistics". Dominion totals for 1924-37 are given at p. 227 of the 1940 Year Book.

Year	Bee-keepers	Colonies	Honey				Beeswax		Value of Honey and Wax
			Average Production per Hive	Total Production	Average Price per Pound to Producers	Total Value	Production	Value	
	No.	No.	lb.	lb.	cts.	$	lb.	$	$
1938....	27,300	394,000	116	45,701,900	7·6	3,487,900	685,528	138,100	3,626,000
1939....	28,000	406,000	85	34,376,100	8·6	2,958,200	515,641	116,300	3,074,500
1940....	27,150	398,540	71	28,215,300	10·3	2,913,600	423,229	121,700	3,035,300
1941....	27,360	409,740	81	33,220,700	11·3	3,755,700	498,310	195,500	3,951,200
1942....	28,430	427,050	66	28,048,700	13·7	3,842,600	420,730	186,300	4,028,900
1943....	34,250	449,650	88	39,492,100	15·4	6,095,000	592,400	276,200	6,371,200
1944....	40,700	508,500	71[1]	36,264,000[1]	15·0	5,534,000[1]	543,900[1]	250,200[1]	5,784,200[1]
1945....	43,300	522,500	63	33,020,000	16·0	5,439,000	487,000	226,000	5,665,000

[1] Revised since the publication of the 1946 Year Book.

38.—Honey Production, by Provinces, 1940-45

Province	1940	1941	1942	1943	1944	1945
	lb.	lb.	lb.	lb.	lb.	lb.
Prince Edward Island......	18,900	12,200	33,500	32,000	44,000	46,000
Nova Scotia...............	78,200	82,600	80,600	72,500	65,000	83,000
New Brunswick............	124,000	124,800	225,000	232,200	185,000	104,000
Quebec.....................	3,112,300	3,042,600	4,026,900	5,000,000	4,900,000[1]	4,487,000
Ontario.....................	14,044,000	17,733,000	11,760,000	19,212,000	15,022,000	9,095,000
Manitoba...................	3,669,900	4,970,000	3,142,000	4,503,000	5,271,000	4,860,000
Saskatchewan..............	3,682,000	2,966,500	4,947,100	5,364,600	4,376,000	7,328,000
Alberta......................	2,222,000	3,120,000	2,500,000	3,800,000	5,130,000	6,000,000
British Columbia...........	1,264,000	1,169,000	1,333,600	1,275,800	1,271,000	1,017,000
Totals...............	**28,215,300**	**33,220,700**	**28,048,700**	**39,492,100**	**36,264,000**[1]	**33,020,000**

[1] Revised since the publication of the 1946 Year Book.

Subsection 9.—Prices of Agricultural Produce

Monthly prices of grain and monthly prices of live stock are shown in the "Quarterly Bulletin of Agricultural Statistics".

39.—Yearly Average Cash Prices per Bushel of Canadian Cereals—Basis, in Store at Fort William and Port Arthur—Crop Years Ended July 31, 1937-46

Note.—Statistics for 1926-30 are given at p. 228 of the 1940 Year Book, and for 1931-36 at p. 225 of the 1942 edition.

Year Ended July 31—	Averages in Cents and Eighths of a Cent per Bushel				
	Wheat, No. 1 N.	Oats, No. 2 C.W.	Barley, No. 2 C.W. —6 Row	Rye, No. 2 C.W.	Flaxseed, No. 1 C.W.
	cts.	cts.	cts.	cts.	cts.
1937....................................	122/5	53/0	77/5	98/5	171/3
1938....................................	131/4	50/3	49/3	72/3	164/2
1939....................................	62/0	29/0	40/7	40/5	143/4
1940....................................	76/4	35/5	45/0	59/7	172/3
1941....................................	74/0	34/6	45/5	49/6	144/3
1942....................................	76/5	49/1	61/4	60/1	158/1[1]
1943....................................	94/4	49/2	64/2	68/4	225[2]
1944....................................	122/7	51/4	64/6	115/4	250[2]
1945....................................	125[2]	51/4	64/6	126/2	275[2]
1946....................................	135[3]	51/4	64/6	223/7	275[2]

[1] Average to Mar. 31, 1942; the Wheat Board thereafter became the sole buyer and seller of flaxseed. Ceiling price $1·64 per bu. [2] Fixed price to growers. [3] Includes $1·25 initial payment plus 10 cents retroactive increase announced July 30, 1946.

40.—Yearly Average Prices per Cwt. of Canadian Live Stock at Principal Markets, 1942-46

Item.	Toronto					Montreal				
	1942	1943	1944	1945	1946	1942	1943	1944	1945	1946
	$	$	$	$	$	$	$	$	$	$
Steers, up to 1,050 lb., good	10·29	11·76	11·48	11·65	12·45	10·70	12·18	12·15	12·25	12·70
Steers, up to 1,050 lb., medium	9·77	11·27	11·01	10·90	11·80	9·64	11·07	11·09	11·15	11·60
Steers, up to 1,050 lb., common	9·31	10·35	9·61	9·80	10·80	8·33	9·65	9·28	9·50	10·00
Steers, over 1,050 lb., good	10·39	11·99	11·99	12·20	13·05	10·74	12·17	12·33	12·05	12·85
Steers, over 1,050 lb., medium	9·93	11·48	11·44	11·45	12·45	9·67	11·12	11·33	11·10	11·70
Steers, over 1,050 lb., common	9·56	10·87	10·87	10·70	11·70	8·24	9·60	9·45	9·30	10·20
Heifers, good	10·10	11·57	11·24	11·25	12·15	9·63	11·08	10·74	10·45	11·25
Heifers, medium	9·65	11·09	10·80	10·70	11·65	8·65	9·95	9·20	9·50	10·00
Calves, fed, good	11·12	12·43	12·57	12·55	13·05	11·68	12·69	12·43	12·65	13·05
Calves, fed, medium	10·52	11·91	11·89	11·85	12·50	10·30	11·26	10·93	9·90	11·55
Cows, good	8·24	9·37	8·77	9·10	10·15	8·53	9·17	8·69	9·30	9·75
Cows, medium	7·58	8·64	8·06	8·45	9·20	7·44	8·84	7·88	8·20	8·70
Bulls, good	9·07	10·18	8·61	9·15	10·45	8·91	9·19	8·19	9·10	10·00
Stocker and feeder steers, good	10·45	11·47	10·03	10·00	11·40	[1]	[1]	[1]	[1]	[1]
Stocker and feeder steers, common	9·29	9·94	8·59	8·90	10·25	[1]	[1]	[1]	[1]	[1]
Stock cows and heifers, good	7·26	8·55	8·23	8·40	10·00	[1]	[1]	[1]	[1]	[1]
Stock cows and heifers, common	7·23	7·89	6·93	7·45	8·25	[1]	[1]	[1]	[1]	[1]
Calves, veal, good and choice	14·62	15·39	14·55	14·70	15·70	13·62	15·53	14·12	14·60	15·10
Calves, veal, common and medium	12·17	13·00	11·18	11·80	12·75	10·70	13·34	9·91	10·70	12·45
Hogs, Grade B-1, dressed	15·69	16·87	17·25	17·90	19·85	15·88	16·94	17·26	18·20	20·05
Lambs, good handy weights	13·04	13·93	13·40	14·40	15·25	12·41	12·55	11·94	13·55	14·45
Lambs, common, all weights	10·55	10·38	8·60	9·80	11·45	10·92	10·52	7·16	9·40	9·45
Sheep, good handy weights	8·14	8·41	5·06	7·35	8·55	7·62	8·49	4·90	6·65	7·80

	Winnipeg					Edmonton				
	1942	1943	1944	1945	1946	1942	1943	1944	1945	1946
	$	$	$	$	$	$	$	$	$	$
Steers, up to 1,050 lb., good	9·53	11·10	11·15	11·40	12·00	9·45	11·16	11·24	11·40	11·75
Steers, up to 1,050 lb., medium	8·59	10·11	10·01	10·00	10·65	8·65	10·28	10·06	10·20	10·55
Steers, up to 1,050 lb., common	7·53	8·83	8·57	8·35	9·20	7·41	8·65	8·17	7·90	8·85
Steers, over 1,050 lb., good	9·54	11·09	11·13	11·40	12·05	9·40	11·25	11·14	11·35	11·90
Steers, over 1,050 lb., medium	8·64	10·15	10·01	10·00	10·75	8·55	10·33	10·09	10·15	10·60
Steers, over 1,050 lb., common	7·69	9·00	8·76	8·55	9·45	7·43	9·05	8·31	8·35	9·35
Heifers, good	8·77	10·02	10·06	10·05	10·55	8·71	10·31	10·11	10·20	10·45
Heifers, medium	7·96	9·08	9·03	8·75	9·30	8·04	9·11	8·88	8·85	9·35
Calves, fed, good	10·27	11·15	11·48	11·80	12·10	9·82	11·39	11·50	11·60	11·95
Calves, fed, medium	8·88	10·29	10·56	10·70	10·95	8·66	10·44	10·37	10·55	10·60
Cows, good	7·65	8·75	8·17	8·45	9·20	7·26	8·56	7·55	8·20	8·90
Cows, medium	6·66	7·56	7·13	7·30	7·95	6·50	7·72	6·49	7·05	7·80
Bulls, good	8·15	9·11	7·60	8·55	9·65	7·27	8·04	6·66	7·30	8·95
Stocker and feeder steers, good	8·75	9·75	8·54	8·85	10·20	7·83	9·25	8·44	8·75	9·80
Stocker and feeder steers, common	7·29	7·74	6·55	7·05	8·50	6·80	7·66	6·93	7·10	8·65
Stock cows and heifers, good	7·47	8·49	6·91	7·50	8·45	6·53	7·74	6·81	7·00	7·95
Stock cows and heifers, common	5·80	6·32	5·48	6·00	6·85	5·60	6·02	5·38	5·70	6·70
Calves, veal, good and choice	11·91	13·39	12·67	13·05	13·95	11·03	12·13	11·63	11·05	12·30
Calves, veal, common and medium	8·81	10·25	8·90	9·20	10·35	8·50	10·18	9·55	9·15	9·20
Hogs, Grade B-1, dressed	14·55	15·86	16·41	16·70	17·85	14·21	15·60	15·92	16·15	17·40
Lambs, good handy weights	11·18	11·44	11·07	12·25	13·45	10·14	10·59	10·62	11·25	12·25
Lambs, common, all weights	9·35	8·51	7·04	8·00	8·45	7·82	8·25	7·29	7·85	8·55
Sheep, good handy weights	5·74	6·64	3·32	5·65	7·25	6·30	6·47	5·52	6·15	7·35

[1] No sales reported.

Index Numbers of Agricultural Prices.—The series of index numbers of field crop prices, shown in Table **41**, has been discontinued as of July 31, 1946; that table gives the last figures to be published. The new series, figures for which are given in Table **42**, is much more complete in that it includes prices received by farmers for live stock and products, fruits, vegetables and several special crops such as honey, maple products, etc. To date, index numbers by months only are available; compilation of those by products is not yet complete.

41.—Index Numbers of Farm Prices[1] of Field Crops, Crop Years Ended July 31, 1937-46

(1935-36 to 1939-40=100)

Note.—For the formulæ used in the calculation and for index numbers by provinces, see "Quarterly Bulletin of Agricultural Statistics", January-March, 1942. Indexes for the years 1931-32 to 1939-40 based on average prices, 1926-27, are given at p. 230 of the 1940 Year Book. Indexes on the present base, for the years 1909-10 to 1935-36, are given at pp. 180-181 of the 1941 Year Book.

Field Crop	Average Price 1935-39[1]	Crop Year Ended July 31—									
		1937	1938	1939	1940	1941	1942	1943	1944	1945	1946[2]
	$										
Wheat	0·68	138·2	150·0	86·8	79·4	83·8[3]	89·7[3]	132·4[3]	166·2[3]	177·9	169·1
Oats	0·31	138·7	138·7	77·4	96·8	90·3	132·3	125·8	187·1[3]	174·2	171·0
Barley	0·40	172·5	127·5	70·0	85·0	80·0	107·5	115·0	165·0	187·5	167·5
Rye	0·42	166·7	171·4	69·0	100·0	78·6	107·1	114·3	228·6	228·6	350·0
Peas	1·52	106·6	110·5	102·0	118·4	128·9	143·4	145·4	150·7	169·1	186·2
Beans	1·55	131·6	79·4	71·6	132·9	118·7	118·1	116·8	150·3	169·7	172·3
Buckwheat	0·63	112·7	114·3	92·1	95·2	90·5	109·5	114·3	128·6	133·3	138·1
Mixed grains	0·44	127·3	115·9	88·6	97·7	88·6	122·7	118·2	143·2	136·4	147·7
Flaxseed	1·33	108·3	111·3	85·0	106·0	80·5	94·7	150·4	161·7	189·5	188·0
Corn for husking	0·55	127·3	116·4	85·5	100·0	100·0	130·9	143·6	158·2	180·0	189·1
Potatoes	0·92	123·9	68·5	100·0	122·8	91·3	134·8	163·0	194·6	166·3	245·7
Turnips, etc	0·34	102·9	94·1	97·0	111·8	94·1	138·2	144·1	191·2	214·7	255·9
Hay and clover	7·75	98·8	97·2	97·8	108·4	111·5	162·2	140·1	142·5	164·8	155·6
Grain hay	5·26	121·9	118·4	83·1	83·1	81·2	99·0	89·4	105·7	113·5	127·6
Alfalfa	8·37	109·8	96·3	94·1	103·9	98·6	131·4	114·9	128·4	139·2	148·1
Fodder corn	3·10	109·0	99·4	90·6	97·7	94·8	126·5	127·7	134·5	128·4	134·8
Sugar beets	6·31	91·0	94·9	104·4	119·5	106·5	118·7	130·0	165·1	175·6	168·0
All Field Crops	–	**129·0**	**125·6**	**87·4**	**94·2**	**91·7**[3]	**119·5**[3]	**124·9**[3]	**164·4**[3]	**171·2**	**172·1**

[1] Prices quoted are per bu., except for potatoes and turnips, etc., which are per cwt., and the last five items, which are per ton. [2] Subject to revision. [3] Revised since the publication of the 1946 Year Book.

42.—Average Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1935-46, and by Months, 1945 and 1946

(1935-39=100)

Note.—A description of this index, its coverage and the methods used will be found in the "Quarterly Bulletin of Agricultural Statistics" for October-December, 1946.

Year and Month	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1935 Av.	**81·4**	**92·6**	**80·8**	**90·1**	**93·2**	**85·6**	**83·1**	**84·3**	**92·7**	**88·0**
1936 Av.	**118·0**	**103·5**	**110·2**	**98·6**	**98·8**	**94·0**	**93·4**	**93·8**	**100·4**	**96·9**
1937 Av.	**103·7**	**99·3**	**100·1**	**104·1**	**108·7**	**129·9**	**136·4**	**131·4**	**107·1**	**119·7**
1938 Av.	**92·4**	**101·4**	**97·4**	**107·0**	**104·0**	**104·9**	**107·6**	**105·6**	**100·1**	**105·0**
1939 Av.	**104·6**	**107·6**	**111·4**	**100·4**	**99·2**	**85·6**	**79·9**	**84·9**	**98·8**	**91·8**
1940 Av.	**101·6**	**99·6**	**110·1**	**103·7**	**104·2**	**92·8**	**86·5**	**90·6**	**103·6**	**96·8**
1941 Av.	**105·2**	**117·1**	**115·5**	**127·4**	**120·2**	**103·7**	**93·8**	**102·8**	**114·5**	**110·2**
1942 Av.	**156·2**	**144·1**	**160·4**	**153·4**	**147·0**	**122·2**	**110·5**	**121·7**	**140·6**	**133·1**
1943 Av.	**190·3**	**169·1**	**181·4**	**172·6**	**165·0**	**151·3**	**139·9**	**149·9**	**175·9**	**157·8**
1944 Av.	**172·7**	**173·3**	**171·9**	**171·7**	**168·7**	**172·4**	**170·3**	**176·0**	**179·6**	**171·8**
1945—										
January	176·2	171·9	170·6	173·2	169·1	175·4	173·1	178·1	176·9	173·2
February	185·5	171·8	179·2	175·0	170·3	175·5	174·6	179·3	177·7	174·6
March	192·7	173·0	187·0	174·2	171·1	176·7	175·1	179·7	180·3	175·4
April	197·6	178·4	187·0	172·5	171·8	177·4	176·0	181·7	181·3	176·3
May	196·7	176·9	188·9	173·0	172·0	178·0	176·3	182·9	181·3	176·8
June	206·9	179·9	191·6	177·6	173·6	178·8	176·7	183·4	185·2	178·4
July	209·9	183·2	207·3	184·0	174·1	178·8	176·6	182·9	190·2	179·8
August	246·2	192·4	226·4	187·3	176·8	171·9	168·5	176·9	193·4	178·7
September	181·2	183·5	201·4	182·7	176·6	170·5	168·0	174·8	195·1	176·1
October	187·5	180·2	195·9	182·2	175·4	171·1	166·7	173·8	194·6	175·2
November	190·0	181·2	202·5	184·7	178·6	172·7	166·8	174·0	196·3	176·9
December	189·8	182·1	205·8	186·3	178·6	174·7	168·6	175·8	196·9	178·1
1945 Av.	**196·7**	**179·5**	**195·3**	**179·4**	**174·0**	**175·1**	**172·2**	**178·6**	**187·4**	**176·6**

42.—Average Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1935-46, and by Months, 1945 and 1946—concluded

Year and Month	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1946—										
January	196·2	183·5	209·5	188·1	180·7	173·8	169·1	175·7	193·6	178·9
February	202·9	183·5	208·9	188·2	182·4	174·9	169·8	177·4	195·3	180·2
March	205·5	187·1	216·4	188·1	182·2	175·6	169·7	177·6	196·0	180·5
April	210·4	188·5	218·3	190·3	184·5	178·1	171·1	180·6	197·2	182·7
May	216·2	193·8	221·8	194·1	187·5	179·3	172·4	181·1	197·2	184·7
June	214·4	195·8	232·0	197·4	189·2	181·2	173·3	183·2	200·1	186·7
July	217·1	197·2	229·1	199·7	190·4	181·5	173·8	184·0	206·9	188·0
August	237·1	202·0	224·1	201·2	189·4	180·7	172·8	183·1	197·9	187·2
September	176·5	184·0	193·1	197·6	187·9	179·5	171·3	182·0	190·0	183·7
October	166·7	179·5	181·2	200·2	188·3	179·6	171·6	179·3	188·6	183·2
November	161·5	177·6	179·9	202·0	190·0	180·1	171·9	179·4	189·7	183·9
December	161·7	175·9	176·0	203·4	189·9	180·7	173·2	180·8	191·8	184·6
1946 Av.	**197·2**	**187·4**	**207·5**	**195·9**	**186·9**	**178·8**	**171·7**	**180·4**	**195·4**	**183·7**

Subsection 10.—Agricultural Statistics of the Census

Agricultural statistics from the Census of 1941, dealing with farm population, farm workers, and farm tenure, values and indebtedness are given at pp. 250-254 of the 1946 Year Book. Information regarding types of farm, farm machinery and farm revenues and expenditures appears at pp. 238-240 and 243-245 of the 1945 edition.

Subsection 11.—Agricultural Irrigation

Irrigation on the Canadian Prairies.*—The first phase of irrigation development on the Canadian prairies dates back sixty years or more when some of the early ranchers undertook to grow winter feed by diverting water from the smaller streams to irrigate native meadow lands.

By the early 1890's the possibilities of irrigation had been demonstrated and in 1894 the North-West Irrigation Act was passed by the Parliament of Canada. This Act embodied the best features of irrigation laws in other countries and provided the basis for sound irrigation development on the prairies. Following prolonged drought during the 1880's and 1890's, there was increased interest in irrigation and by 1895 some 112 individual projects had been constructed at an estimated cost of $100,000 to serve more than 79,000 acres of land.

The second phase of irrigation expansion in this region started with the construction of large-scale company projects. The first of these was put into operation in 1901 when water diverted from the St. Mary River near the International Boundary line was carried to Lethbridge through the works of the Alberta Railway and Irrigation Company.

Other large projects were built during this era including the Canadian Pacific Railway Company projects at Strathmore and Brooks and the Canada Land and Irrigation Company project at Vauxhall. The construction of these four projects cost some $28,000,000. The total area irrigated is 328,000 acres, though the works of these projects were originally designed to serve a much larger area.

The third phase of development took place mainly during the 1920's when a number of community projects were constructed by locally organized irrigation districts and financed by the issue of bonds guaranteed by the Alberta Government. The irrigation districts were formed under provincial statute passed in 1915 and the projects built during this period included the Taber, Lethbridge Northern,

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* Prepared by W. J. Jacobson, Prairie Farm Rehabilitation Office, Regina, Sask., under the direction of E. S. Archibald, Director, Central Experimental Farm, Department of Agriculture, Ottawa.

New West, Magrath, Raymond, United, Little Bow and the Mountain View irrigation districts. The construction of these projects cost some $6,800,000 and the total area irrigated from these works is 180,800 acres.

With the transfer of the natural resources in 1931 the administration of water rights, excepting international streams, became a provincial responsibility. The total expenditure on irrigation up to that time was estimated at $50,000,000, including cost of construction, maintenance and operation, replacements and betterments. The total area of irrigable land at that time was nearly 608,000 acres including large projects in Alberta and small projects in Alberta and Saskatchewan.

The financing of irrigation development up to that time was based on the idea that the water users should and could pay the total cost of construction including interest on unpaid principal in addition to maintenance and operation. The benefits of irrigation had been demonstrated but the returns to the water users, particularly during the early development years, proved inadequate in most cases to meet the obligations water users then had to assume. Irrigation farmers were especially hard hit by the adverse economic conditions that followed the War of 1914-18 and some drastic reductions in capital charges were found necessary.

The rebuilding of the beet-sugar factory at Raymond, Alta., in 1925, and the introduction of phosphate fertilizers in the late 1920's marked the beginning of more intensive irrigation farming in that Province.

The drought of the 1930's increased the demand for irrigated land but there was little or no prospect of any new construction during the early depression years. The Canadian Pacific Railway initiated its policy of withdrawing from irrigation development by turning over its holdings at Brooks, Alta., to the water users and the Provinces were not in financial position to undertake any development work of this nature. As a result, irrigation expansion was at a complete standstill when the Prairie Farm Rehabilitation Act was passed by the Parliament of Canada in 1935.

This marked the beginning of a new phase in irrigation development on the prairies whereby the Dominion Government was to undertake construction of large irrigation works, to provide assistance for individual projects as well as to conduct surveys and prepare plans.

The P.F.R.A. is broad in scope and water development has, from the outset, been regarded as a major activity in the comprehensive rehabilitation program initiated under the Act. With funds made available from the Dominion Treasury the P.F.R.A. organization is undertaking, with the co-operation of the provinces concerned, to complete the job of irrigation development on the prairies.

Construction work was largely held up during the War, but considerable surveying and designing work was carried on and in 1946 construction was started on a huge irrigation system in southeastern Alberta known as the St. Mary-Milk Rivers Project. When completed this system will provide water for 345,000 acres of new irrigable land and, in addition, give a full supply of water for some 120,000 acres served by existing works. This project extends mainly along the railway line between Lethbridge and Medicine Hat. The lands to be served, therefore, are located in the low-precipitation, high-temperature zone of the prairies in which a wide range of crops are successfully grown where irrigation is available to supply the normal moisture deficiency.

The Project will be the largest irrigation system on the Canadian prairies and the dam, for which the contract has been let, will be 185 feet high and half a mile long at its crest. This will be the highest earth dam so far undertaken in Canada. Construction will extend over a number of years and the total cost, which will exceed $15,000,000, will be divided among the Dominion Government, the Province of Alberta and the water users. When the St. Mary-Milk Rivers Project is fully developed, Canada will be able to fully utilize the share of water allotted to it in 1921 by the International Joint Commission and, thereby, will be in a position to safeguard this right.

Surveys of a number of other large projects are in progress to determine their engineering, agronomic and economic feasibilities. These surveys include land classification to determine the acreage in each project that is suitable for irrigation as well as engineering studies. Brief descriptions of the larger proposed projects are presented below.

In this connecton it is important to note that surveys and planning presently in progress on large P.F.R.A. irrigation works are not necessarily for immediate execution. The main objective of this work is to explore thoroughly, various irrigation possibilities, and to prepare construction plans in detail, so that costs and probable benefits can be determined, and construction undertaken if and when desired with a minimum of delay.

Red Deer River Project.—This project would involve the construction of a large dam on the Red Deer River at a point near the village of Ardley, Alta., some 25 miles east of the town of Red Deer. Water impounded by this dam would provide for hydro-electric power development, the irrigation of several hundred thousand acres of land, and the maintenance of flow in many rangeland streams which normally become dry in the summer. As this project lends itself to considerable expansion, further soil and engineering surveys are required before its ultimate possibilities can be determined.

South Saskatchewan River Development.—The main feature of this project would be the construction of a large dam across the South Saskatchewan River at a point near Elbow, Sask., to provide for irrigation and hydro-electric development, and possibly for the gravity diversion of water to supplement the erratic flow in the Qu'Appelle River. In this connection, the possibility of improving the water supplies for the cities of Moose Jaw and Regina is being explored. Surveys indicate that much of the irrigable land in this project, lying roughly on both sides of the South Saskatchewan in the Elbow-Saskatoon district, are at too high an elevation to be irrigated by gravity flow. For this reason the plans in hand call for the use of hydro-electric power to raise water to the necessary levels by pumping, the cost of such pumping in summer to be offset by the sale of electric power during the winter period of peak demand. Soil surveys of approximately 1,000,000 acres of land tributary to the dam site indicate that about 800,000 acres are suitable for irrigation, on a large portion of which the distribution of water is expected to be an engineering feasibility. Further surveys, both soil and engineering, are necessary to fully assess this project. The South Saskatchewan scheme is the largest so far proposed for construction under the P.F.R.A.

Bow River Development.—Essentially an enlargement of the existing Canada Land and Irrigation project in Southern Alberta, the Bow River Development is designed to supplement water supplies to 55,000 acres already under irrigation, and to bring water to 180,000 acres of new land extending east from Lomond to Medicine Hat. Plans for this project, which lends itself to development by stages, are advanced to a point where construction can be started when conditions warrant.

All large P.F.R.A. irrigation projects are constructed under agreement between the relevant province and the Dominion.

A score or more of community irrigation projects have been built by P.F.R.A. or expanded with P.F.R.A. assistance since 1935, varying in size from several hundred to several thousand acres each. These projects were designed to provide water for a total of more than 100,000 acres of land and are located mainly in southwestern Saskatchewan and southern Alberta. The highest degree of utilization of these projects is in the lower rainfall area but, owing mainly to higher rainfall since 1939, irrigation development has lagged in some cases. In some instances land control is a factor.

Small water developments have been greatly expanded under P.F.R.A. and since 1935 nearly 33,000 projects have been completed in the three Prairie Provinces. These are mainly for stock-watering and household use. However, nearly 1,100 small or individual irrigation projects have been completed under the P.F.R.A. self-help program. These serve an estimated potential area of 35,000 acres. Heavier rainfall has lessened the need for irrigation and the development of many of these projects has lagged. Moreover, many of the older individual irrigation systems have fallen into disuse. There are, nevertheless, some 1,500 authorized projects of this type in Alberta and Saskatchewan serving an estimated area of 48,000 acres. In Manitoba, where rainfall conditions are somewhat better than farther west, no large-scale irrigation developments have yet taken place. P.F.R.A. water-development work in this Province has been largely confined to water-storage projects.

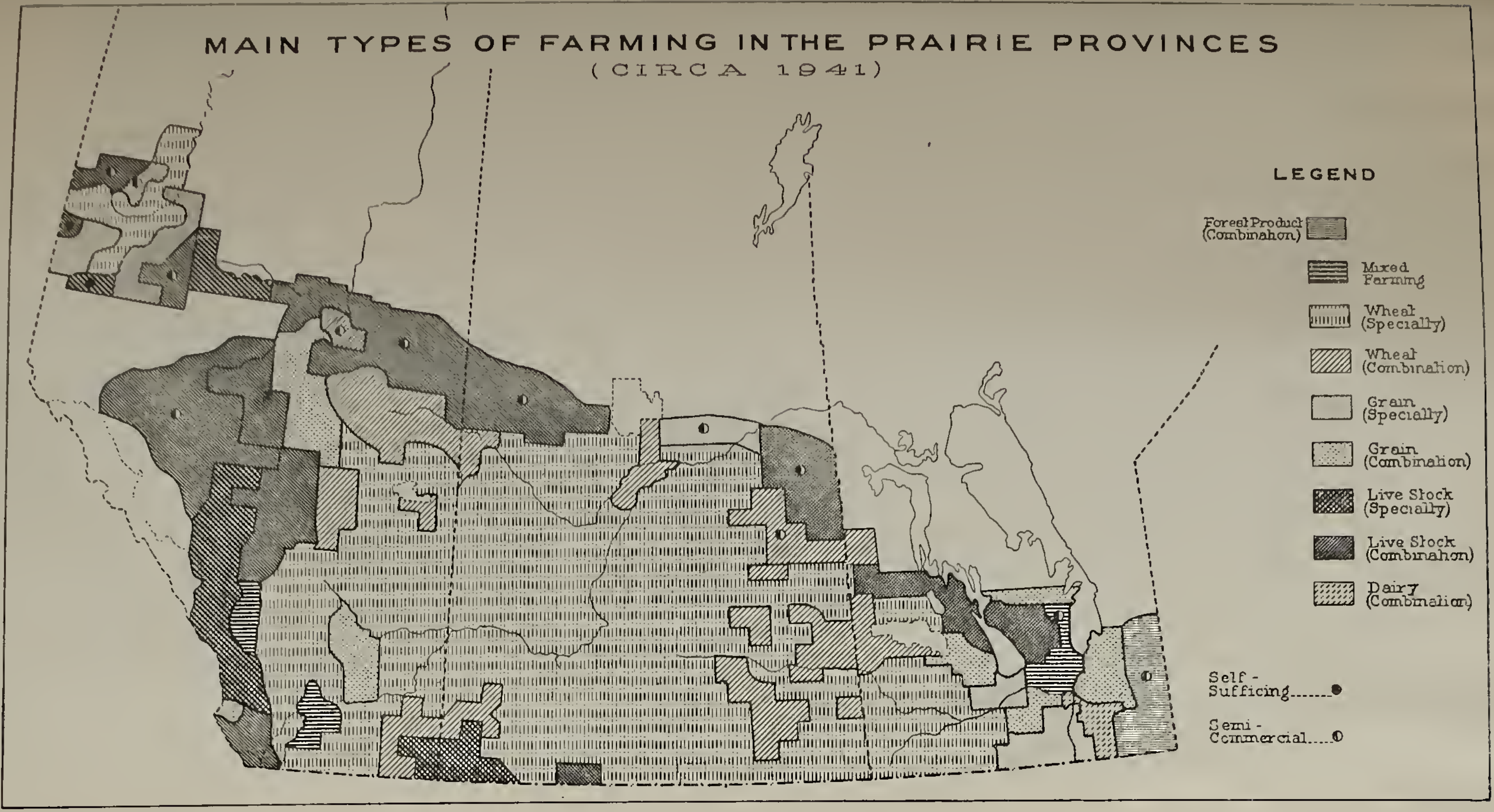
The total area now under irrigation on the Canadian prairies, therefore, amounts to some 656,000 acres including large and small developments. The completion of the St. Mary-Milk Rivers Project will bring the area of irrigated land to more than 1,000,000 acres.

Table 43 shows the larger irrigation developments in Alberta. In addition, there are 630 private irrigation schemes, with a total irrigable area of 70,813 acres.

43.—Irrigation Development in Alberta, as at Oct. 31, 1946

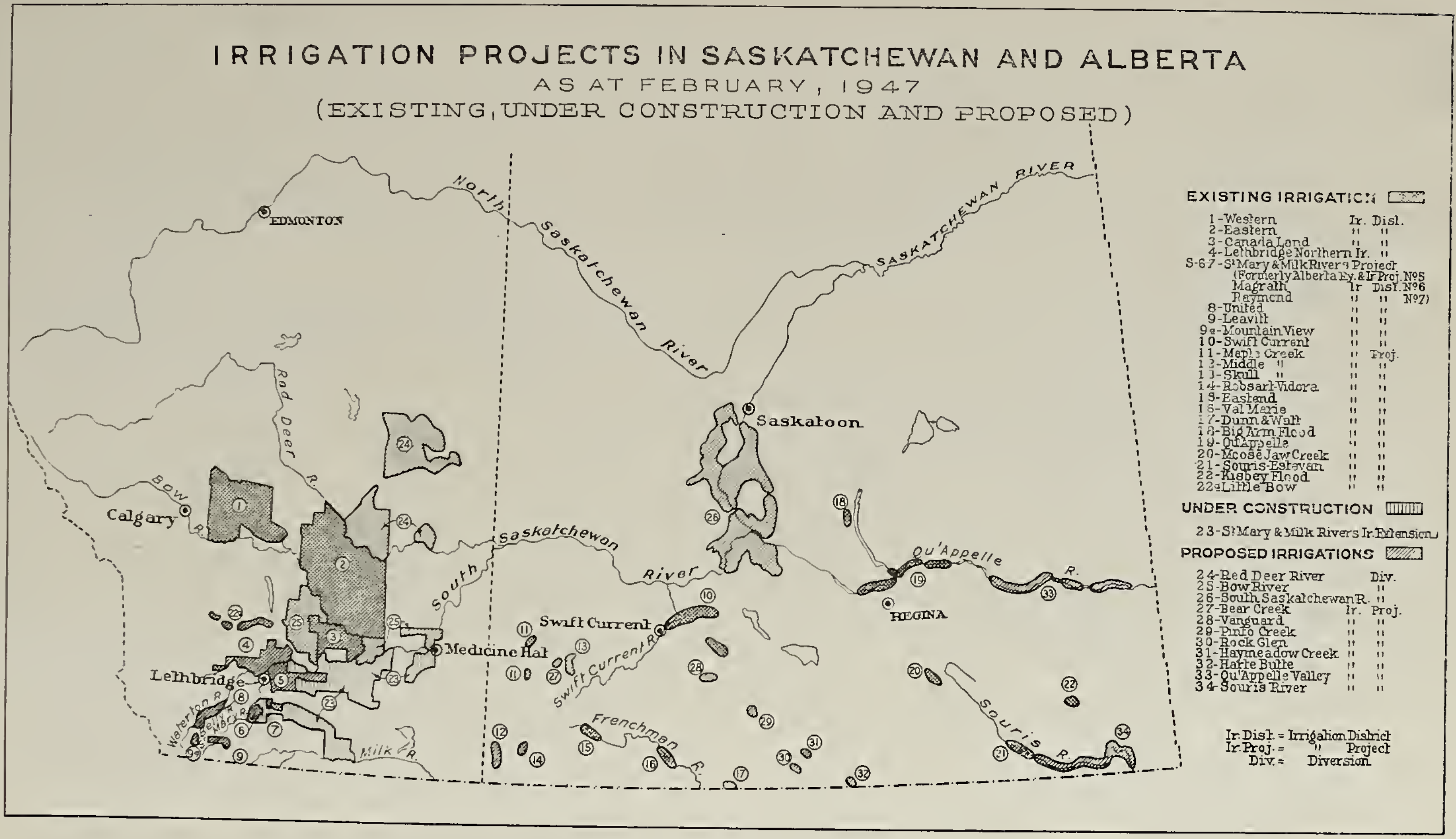
Project	Source of Supply	Miles of Canals 1945	Area of Tract	Area Served by Existing Works	Area Irrigated in—				
					1941	1942	1943	1944	1945
		No.	acres	acres	acres	acres	acres	acres	acres
Canada Land and Irrigation Company....	Bow River.......	461	200,000	55,000	32,754	39,468	32,783	34,640	35,813
New West Irrigation District[1]...........	Bow River.......	24	8,000	4,564	2,558	2,979	4,501	2,626	3,025
Western Irrigation District............	Bow River.......	1,000	150,000	150,000	21,144	9,194	7,666	20,000	20,000
Alberta Railway and Irrigation Company, Lethbridge.........	St. Mary River...	219	200,000	84,000	76,597	57,575	75,707	75,725	75,766
Magrath Irrigation District............	St. Mary River...	90	18,873	6,975	3,448	3,500	3,500	3,500	3,500
Raymond Irrigation District............	St. Mary River...	17	20,520	15,130	14,000	10,000	12,000	12,000	12,000
Taber Irrigation District[2]...........	St. Mary River...	105	33,200	21,500	15,103	14,108	20,935	21,325	21,218
Eastern Irrigation District............	Bow River.......	2,084	1,500,000	250,000	140,000	158,000	168,496	167,094	167,100
Lethbridge Northern Irrigation District..	Oldman River....	600	220,782	96,135	63,575	31,102	67,777	75,927	57,126
United Irrigation District............	Belly River......	175	62,800	34,318	11,000	12,000	14,000	14,000	13,000
Mountain View Irrigation District..	Belly River......	24	6,400	3,569	3,300	3,400	3,254	3,400	3,300
Leavitt Irrigation District............	Belly River......	[3]	16,100	4,571	–	–	–	526	1,000
Little Bow Irrigation District............	Highwood River.	3	10,014	200	50	80	40	120	100
Totals............	–	**4,802**	**2,416,689**	**725,962**	**383,529**	**341,406**	**410,659**	**430,883**	**412,948**

[1] Part of Canada Land and Irrigation Company. [2] Part of Alberta Railway and Irrigation Project. [3] Not completed.



MAIN TYPES OF FARMING IN THE PRAIRIE PROVINCES
(CIRCA 1941)

LEGEND
Forest Product (Combination)
Mixed Farming
Wheat (Specialty)
Wheat (Combination)
Grain (Specialty)
Grain (Combination)
Live Stock (Specialty)
Live Stock (Combination)
Dairy (Combination)
Self-Sufficing ●
Semi-Commercial ◐



IRRIGATION PROJECTS IN SASKATCHEWAN AND ALBERTA
AS AT FEBRUARY, 1947
(EXISTING, UNDER CONSTRUCTION AND PROPOSED)

EXISTING IRRIGATION
1-Western Ir. Dist.
2-Eastern " "
3-Canada Land " "
4-Lethbridge Northern Ir. "
5-6-7-St Mary & Milk Rivers Project (Formerly Alberta Ry. & Ir Proj. No5 Magrath Ir Dist. No6 Raymond " " No7)
8-United " "
9-Leavitt " "
9a-Mountain View " "
10-Swift Current " "
11-Maple Creek " Proj.
12-Middle " " "
13-Skull " " "
14-Robsart-Vidora " "
15-Eastend " "
16-Val Marie " "
17-Dunn & Watt " "
18-Big Arm Flood " "
19-Qu'Appelle " "
20-Moose Jaw Creek " "
21-Souris-Estevan " "
22-Kisbey Flood " "
22a Little Bow " "
UNDER CONSTRUCTION
23-St Mary & Milk Rivers Ir. Extension
PROPOSED IRRIGATIONS
24-Red Deer River Div.
25-Bow River "
26-South Saskatchewan R. "
27-Bear Creek Ir. Proj.
28-Vanguard " "
29-Pinto Creek " "
30-Rock Glen " "
31-Haymeadow Creek " "
32-Harte Butte " "
33-Qu'Appelle Valley " "
34-Souris River " "
Ir. Dist. = Irrigation District
Ir. Proj. = " Project
Div. = Diversion
EDMONTON
Calgary
Lethbridge
Medicine Hat
Swift Current
Saskatoon
REGINA
North Saskatchewan River
Saskatchewan River
South Saskatchewan River
Red Deer R.
Bow R.
Waterton R.
Milk R.
Swift Current R.
Frenchman R.
Qu'Appelle R.
Souris R.

Table 44 shows the principal P.F.R.A. irrigation projects in Manitoba and Saskatchewan.

44.—Principal P.F.R.A. Irrigation Projects in Manitoba and Saskatchewan, as at Oct. 31, 1946

Project	Location	Description	Irrigable Area	Storage Capacity
			acres	acre ft.
Manitoba—				
Deadhorse Creek	Morden	Earthfill dam, completed 1941	100	1,200
Totals, Manitoba[1]	—	—	**100**	**16,265**
Saskatchewan—				
Cypress Lake Storage	Southwest Sask.	Development of storage and irrigation on Frenchman River Valley in southwestern Sask., storage dams to raise level of Cypress Lake for irrigation along Frenchman River; includes canal leading to Robsart-Vidora area.	–	80,000
Val Marie Irrigation District	Val Marie	Dam on Frenchman River and distributing works.	8,549	8,000
Eastend Irrigation District	Frenchman River, southwestern Sask.	Storage dam on Frenchman River and canals to rehabilitate and extend an old irrigation project.	5,396	1,300
Maple Creek	Maple Creek	Development of Maple, Gap and Downie Creeks flowing northward from Cypress Hills for irrigation and stockwatering.	6,000	23,260
Swift Current	Swift Current	Development of Swift Current Creek and tributaries for irrigation, stockwatering, municipal and domestic supply.	25,000	98,350
Qu'Appelle River Valley	On Qu'Appelle River from Moose Jaw east.	Development of Qu'Appelle River and tributaries for irrigation, stockwatering and domestic supply, ultimate irrigable acreage approximately 30,000 acres.	1,600	72,700
Totals, Saskatchewan[1]	—	—	**65,000**	**400,904**

[1] Includes other small projects.

Irrigation in British Columbia.—Irrigation may be said to have officially begun almost as soon as there was an organized authority in this territory. The first right to the use of water for agricultural purposes was granted in 1858, three months after the passing of an Act by the Imperial Government establishing the Crown Colony of British Columbia.

During the early years of settlement in the Province, irrigation was used mostly for raising hay, in valley bottom lands where it was easy to divert water out of the streams. By the end of the century the settlers were becoming bolder, ditches were longer and water was being conveyed to the benches and higher lands, especially where it became apparent that the climate and the benchlands were suitable for growing tree fruits on a commercial scale.

Companies were formed to buy up large holdings, subdivide them into small parcels, and construct irrigation systems to supply them with water. Most of these companies have passed into history and the irrigation systems they started have been taken over and operated by Improvement Districts under the Water Act or by Municipalities. At first these systems were constructed largely with earth ditches and wooden flumes, but as the large water losses from such structures became apparent, many ditches have been lined with concrete or asphalt, and wooden flumes replaced with metal or concrete, so that to-day the large irrigation systems of the Province are good examples of hydraulic structures. Owing to the generally rugged topography, irrigation engineering has been faced with many difficult problems, so that, compared with other parts of the world, many interesting features will be found which are peculiar to the varied topography that had to be traversed. The generally prevalent condition of agricultural development following, of necessity, the rather narrow valleys does not lend itself to simple and cheap irrigation systems.

Due to the wide variation in climate and soil types found throughout the Province, three methods of irrigation are in use. Sprinkling is practised in fairly humid areas, where the precipitation is moderate but insufficient during the growing period, also on heavy soils, and on rough topography. In the dry areas delivery by ditch or flume and distribution over the ground by furrows is general for fruit and vegetable crops. Irrigation by flooding is common in stock-raising areas on hay meadows. Most of the irrigation is by gravity supply, but pumping from lakes and rivers is also practised. In general, pumping is a more costly method and only warrantable in favoured areas for the growing of high-priced specialty crops. Any general reduction in power pumping rates would probably induce increased irrigation by pumping.

Irrigable and Irrigated Lands.—Estimates of the area of irrigable and irrigated lands of the Province are only approximate, as in the case of the former no over-all complete survey has ever been made, and in the latter case apart from the organized irrigation districts and companies for whom records are available, there are hundreds of individually irrigated farms and ranches for which no exact figures exist. The best estimate of irrigated lands in the Province is 150,000 acres, but approximately 35,000 acres of this are inadequately irrigated. The provision of additional storage dams and the improvement of conveying works to reduce seepage losses would provide water for much of this land. An additional 85,000 acres are under water licence and capable of being irrigated. A large proportion of this area will be under irrigation by individual effort by the time the works called for under the licences are completed in the next few years. In addition, there are some 200,000 acres which could be brought under irrigation, but at a cost greater than that of existing works.

Table 45, based on the best available figures, shows the irrigable and irrigated areas at present under the control of public and private organizations.

45.—Major Irrigation Projects in British Columbia, 1946

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
Provincial—				
Southern Okanagan	Okanagan River	5,000	4,200	Okanagan Valley
Municipal—				
Penticton Municipality	Penticton and Ellis Creeks	2,500	2,300	Okanagan Valley
Summerland Municipality	Trout and Eneas Creeks	3,800	3,400	" "
Irrigation Districts—				
B.C. Fruitlands Irrigation District	Jameson Creek and Thompson River	3,000	2,800	Thompson Valley
Black Mountain	Belgo Creek	4,000	3,850	Okanagan Valley
Cawston	Similkameen River	500	257	" "
East Creston	Arrow Creek	1,400	1,160	Kootenay Valley
Ellison Irrigation District	Kelowna Creek	687	687	Okanagan Valley
Girouard	Swan Lake Creek	110	110	" "
Glenmore	Kelowna Creek	2,000	1,946	" "
Grand Forks	Kettle River	2,700	2,200	Kettle Valley
Heffley	Heffley Creek and North Thompson River	2,700	1,633	North Thompson
Kaleden	Marron Creek	500	430	Okanagan Valley

45.—Major Irrigation Projects in British Columbia, 1946—concluded

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
Irrigation Districts—concluded				
Keremeos	Ashnola River and Keremeos Creek	1,020	960	Similkameen Valley
Malcolm Horie	Joseph Creek	200	150	Near Cranbrook
Merritt Central	Coldwater River	125	125	Nicola Valley
Naramata	Lequime and Robinson Creeks	950	867	Okanagan Valley
Okanagan Falls	Shuttleworth Creek	400	180	" "
Okanagan Mission Irrigation District	Bellevue Creek and Okanagan Lake	312	500	" "
Oyama	Long Lake	350	350	" "
Peachland	Peachland Creek	450	400	" "
Renata	Dog Creek	200	140	Columbia Valley
Robson	Pass Creek	262	262	" "
Scotty Creek	Scotty Creek	863	863	Okanagan Valley
South East Kelowna	Hydraulic Creek	2,800	2,560	" "
Trout Creek	Trout Creek	350	300	" "
Vernon	Coldstream and Jones Creeks	7,500	7,200	" "
Vinsulla Irrigation District	Knouff Creek	425	200	North Thompson Valley
Westbank	Powers Creek	700	648	Okanagan Valley
Winfield and Okanagan Centre	Vernon Creek	2,000	1,823	" "
Wynndel	Duck Creek	500	450	Kootenay Valley
Irrigation Companies—				
Columbia Valley Irrigated Fruitlands Company	Bruce Creek	2,000	367	Columbia Valley
Columbia Valley Ranches	Vermillion Creek	940	575	" "
Woods Lake Water Company	Oyama Creek	792	792	Okanagan Valley
Water-Users Communities (Co-operative)—				
Benvoulin	Mission Creek	502	502	Okanagan Valley
Brent Davis	Mission Creek	405	405	" "
Bullock Creek	Bullock Creek	127	127	Similkameen Valley
Campbell Creek	Campbell Creek	1,000	1,000	Thompson Valley
Canyon	Association Creek	400	362	Kootenay Valley
Chinook Cove Water Users Community	Nelson Creek	157	157	North Thompson Valley
Cuisson Creek Water Users Community	Cuisson Creek	272	272	Upper Fraser Valley
Dog Creek	Dog Creek	323	323	" "
Guisachan	Mission Creek	332	332	Okanagan Valley
Hollywood	Mission Creek	186	186	" "
Kelowna	Kelowna Creek	64	64	" "
Okanagan Mission	Bellevue Creek	179	179	" "
Peterson Creek	Peterson Creek	862	800	North Thompson Valley
Powers Creek	Powers Creek	200	150	Okanagan Valley
Smithson Alphonse	Mission Creek	297	297	" "
South Kelowna	Mission Creek	184	184	" "
South Vernon	Vernon Creek	208	208	" "
Trepanier	Trepanier Creek	88	88	" "
Tronson	Vernon Creek	134	134	" "
Upper Bankhead	Kelowna Creek and Mission Creek	113	113	" "

Nearly 100,000 acres are irrigated by individual effort, the majority being hay and grain for stock-ranches, and for field crops.

The Conservation Fund.—The original water companies, subsidiaries of land selling companies, built their irrigation systems more with an eye to selling land than with any thought of permanence and serviceability, so that when the water users at a later date were forced for their own protection to acquire and operate the systems, and formed irrigation districts, they were immediately faced with a costly program of replacements and reconstruction, and appealed to the Provincial Government for help. While the first irrigation districts were not incorporated until 1920, the Conservation Fund was set up in 1918 to provide funds for assisting towards reconstruction, the moneys so expended to be a charge against the lands involved.

It was intended to be a revolving fund out of which further loans could be made as the earlier ones were paid off, but after 1922, falling fruit prices with consequent difficulty in collecting revenues by the districts resulted in their defaulting. In 1928, Legislative relief was granted the districts which reduced their indebtedness by about 25 p.c. The depression years of the 1930's increased their financial difficulties and in 1933 a further reduction of approximately 45 p.c. of the remaining indebtedness was granted. During the next five years the districts failed to pay the reduced instalments, and also failed to properly maintain their systems. This condition brought about the 1938 adjustment, providing for a substantial reduction of the instalment payments to the Conservation Fund on condition that the districts expended or set aside certain sums for replacement of works. This arrangement is still in effect, although the payments under it have been reduced in some cases on the plea of special circumstances.

The present status of irrigation loans under the Conservation Fund is as follows: total loans, $3,314,283; repayments received, principal and interest $1,571,988; total relief granted, principal and interest, $2,859,278.

Subsection 12.—International Agricultural Statistics

The chief source of international agricultural statistics prior to the Second World War was the International Institute of Agriculture at Rome. Compilations of the Institute were interrupted during the war years and it was not possible to carry in the Year Book statistics of world production of cereals and potatoes, trade in wheat and flour, and numbers of live stock in principal countries. However, the Food and Agriculture Organization of the United Nations has taken over the work formerly carried on by the International Institute of Agriculture in the field of agricultural statistics. Accordingly, it is expected that world statistics for many important food and agricultural commodities again will become available during 1947 and will appear in the 1948 Year Book.

The following table is summarized from a report of the Office of Foreign Agricultural Relations, United States Department of Agriculture, and gives the 1946 wheat acreage and production by leading wheat-producing countries of the world, compared with 1945 and the average for 1935-39.

46.—Estimated Acreages and Production of Wheat in Specified Countries, Year of Harvest, 1945 and 1946, with Averages, 1935-39

NOTE.—Estimates for countries having changed boundaries have been adjusted to pre-war boundaries except as noted. Years shown refer to years of harvest in the Northern Hemisphere. Harvests of Northern Hemisphere countries are combined with those of the Southern Hemisphere, which immediately follow; thus, the crop harvested in the Northern Hemisphere in 1946 is combined with the Southern Hemisphere harvest which began late in 1946 and ended early in 1947. Figures throughout the table refer to harvested areas so far as possible.

Continent and Country	Acreages			Production		
	Average 1935-39	1945	1946	Average 1935-39	1945	1946
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
North America—						
Canada	25,595	23,414	25,900	312,399	318,512	420,725
Mexico	1,244	1,158	1,193	14,284	12,741	13,547
United States	57,293	65,120	67,201	758,623	1,108,224	1,155,715
Totals, North America[1]	**84,170**	**89,750**	**94,350**	**1,086,000**	**1,440,000**	**1,590,000**

For footnote, see end of table, p. 383.

46.—Estimated Acreages and Production of Wheat in Specified Countries, Year of Harvest, 1945 and 1946, with Averages, 1935-39—concluded

Continent and Country	Acreages			Production		
	Average 1935-39	1945	1946	Average 1935-39	1945	1946
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
Europe—						
Austria	631	470	575	15,708	9,000	10,300
Belgium	402	455	375	16,150	14,000	16,000
Bulgaria[2]	3,080	3,102	3,768	64,076	41,818	67,652
Czechoslovakia	2,220	–	2,315	59,090	–	50,000
France	12,560	9,400	10,600	286,510	184,000	250,000
Germany	5,071	–	–	176,395	–	–
Greece	2,150	1,640	1,912	30,205	16,800	28,500
Hungary	4,091	1,816	2,867	91,210	24,177	37,045
Italy[3]	12,635	11,600	12,000	279,519	169,000	245,000
Netherlands	338	295	302	14,791	8,004	13,180
Portugal	1,227	1,248	1,253	16,092	10,899	18,372
Spain	11,253[4]	8,896	9,409	157,986[4]	73,000	133,110
Sweden	740	731	750	26,351	21,616	24,827
United Kingdom	1,843	2,274	2,066	62,361	81,237	68,693
Totals, Europe[1]	**79,200**	**62,700**	**70,800**	**1,670,000**	**1,030,000**	**1,350,000**
Asia—						
Iran	4,191[5]	–	–	72,128[5]	77,161	76,426
Iraq	1,724[5]	2,100	2,000	18,114	16,534	14,700
Syria	1,363[5]	1,854	1,827	19,485[5]	14,311	19,312
Turkey	8,952	9,243	9,246	135,690	80,443	180,000
China	48,120[5]	53,000	55,153	715,536	850,000	859,364
Manchuria	2,903	1,295	–	35,200	14,451	–
India	34,492	35,980	34,559	370,660	393,904	332,379
Japan	1,738	1,789	1,495	50,133	34,756	22,597
Totals, Asia[1]	**106,300**	**111,600**	**110,700**	**1,446,000**	**1,510,000**	**1,545,000**
South America—						
Argentina	15,834	10,108	14,000	221,769	143,556	221,342
Chile	1,963	1,803	1,873	31,562	34,176	33,928
Uruguay	1,210	875	1,008	13,255	7,958	9,137
Totals, South America[1]	**20,500**	**14,300**	**18,500**	**281,000**	**202,000**	**282,000**
Africa—						
Algeria	4,184	3,272	3,326	35,201	11,023	35,000
Egypt	1,464	1,710	1,646	45,848	43,436	42,725
French Morocco	3,254	2,286	2,122	23,198	5,748	24,781
Tunisia	1,915	1,900	1,589	14,965	6,357	11,942
Union of South Africa	1,926	2,244	2,700	16,259	9,493	18,267
Totals, Africa[1]	**13,800**	**12,800**	**12,700**	**143,000**	**85,000**	**142,000**
Oceania—						
Australia	13,128	11,426	12,371	169,744	142,410	116,800
New Zealand	221	162	140	7,129	5,400	4,500
Totals, Oceania	**13,349**	**11,588**	**12,511**	**176,873**	**147,810**	**121,300**
World Totals[1]	**416,100**	**389,700**	**408,600**	**5,962,000**	**5,215,000**	**5,880,000**

[1] Totals include allowance for missing data for countries shown and for other producing countries not shown. [2] Estimates for 1944 to date include Southern Dobrudja and are, therefore, not strictly comparable with earlier years shown. [3] Estimates for 1945 and 1946 are adjusted to pre-war boundaries. [4] Figure for 1935 only. [5] Average of less than five years. [6] Includes Lebanon; estimates for Syria and Lebanon not shown separately prior to 1944.

CHAPTER XIII.—FORESTRY*

CONSPECTUS

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The forests of Canada cover a vast region in the north temperate climatic zone, reaching from the Atlantic Ocean to the Pacific; they extend northward from the International Boundary to beyond the Arctic Circle. Wide variations in climatic, physiographic and soil conditions cause marked differences in the character of the forests in different parts of the country, hence more or less well-defined forest regions may be recognized.

Section 1.—Forest Regions

At pp. 184-188 of the 1941 edition of the Year Book the forest regions of Canada are separately described, together with the dominant and associated tree species common to each.

Section 2.—Important Tree Species

In Canada there are more than 125 tree species of which 33 are conifers, commonly called "softwoods". While the number of deciduous or "hardwood" species is large, only about a dozen of these are of much commercial importance in the lumber trade, and about 80 p.c. of the volume of merchantable timber is made up of softwoods.

Spruce.—The five native spruces are all of commercial importance, furnishing over one-quarter of the total production of lumber in Canada and over two-thirds of the total quantity of pulpwood consumed in Canadian pulp mills. Light colour, freedom from resin, and the desirable characteristics of its fibres make spruce the premier pulpwood of the world. The wood of all the spruces, when seasoned, is practically tasteless and odourless and, consequently, is much in demand for food containers. It is very widely used for construction, interior finish, boxes and crating, and many specialty purposes. Of the five native spruce species, the white spruce *(Picea glauca)* is the most abundant and the most important commercially. With black spruce *(Picea mariana)*, it ranges from the Atlantic Coast to Alaska, extending to the limit of tree growth. The black spruce is a smaller, slower-growing tree, often confined to swampy sites and reaching sawlog size only under

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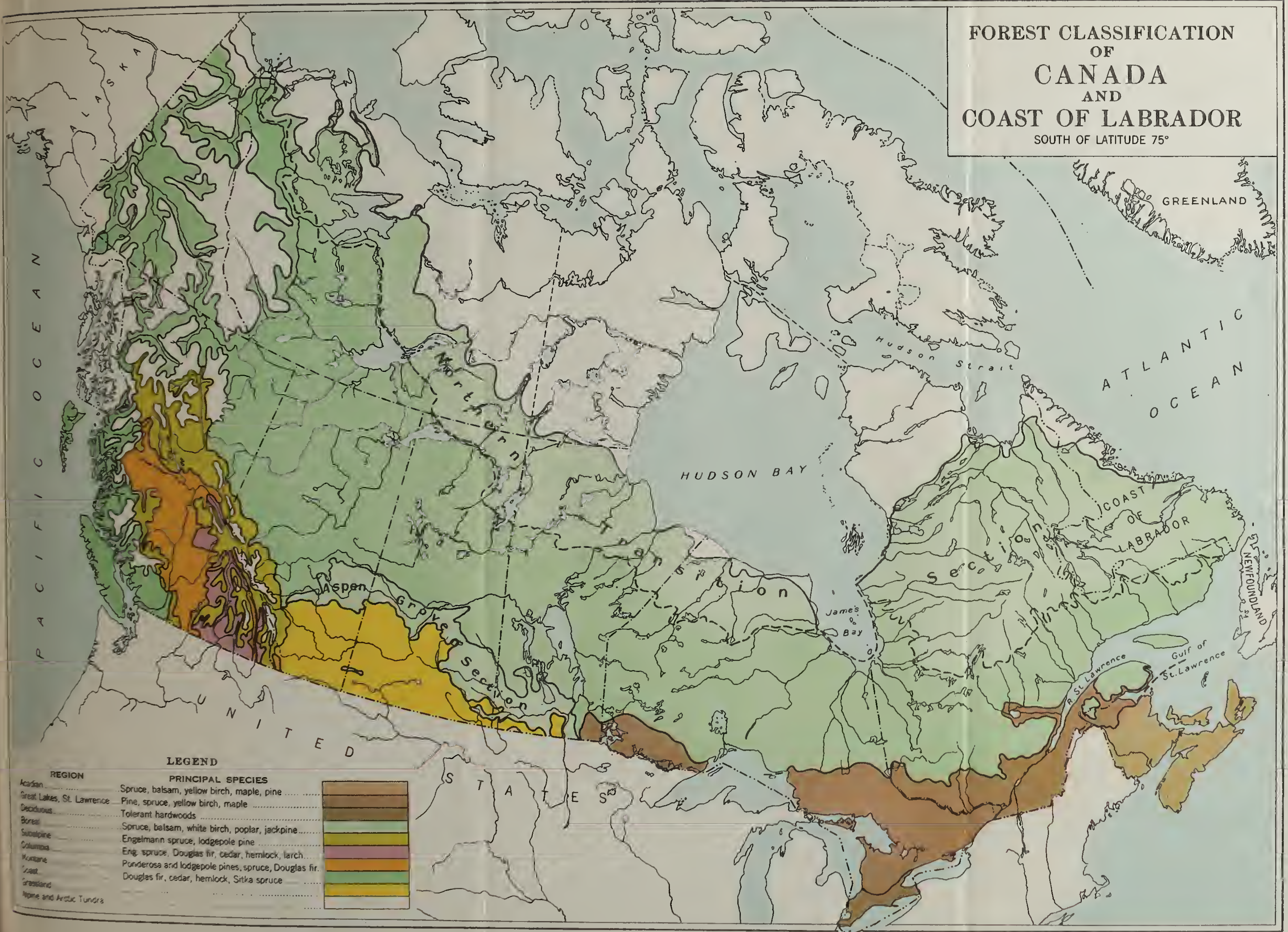
* Sections of this Chapter that deal with forestry and forest administration have been prepared by the Dominion Forest Service, Department of Mines and Resources. Sections dealing with forest utilization and forest industries have been revised under the direction of W. H. Losee, Director, Census and Merchandising Division, Dominion Bureau of Statistics, by L. J. Pouliot, Chief, Forest Products Statistics.



FOREST CLASSIFICATION OF CANADA AND COAST OF LABRADOR

SOUTH OF LATITUDE 75°

LEGEND

REGION	PRINCIPAL SPECIES	
Acadian	Spruce, balsam, yellow birch, maple, pine	🟫
Great Lakes, St. Lawrence	Pine, spruce, yellow birch, maple	🟫
Deciduous	Tolerant hardwoods	🟫
Boreal	Spruce, balsam, white birch, poplar, jackpine	🟩
Subalpine	Engelmann spruce, lodgepole pine	🟨
Columbia	Eng. spruce, Douglas fir, cedar, hemlock, larch	🟪
Montane	Ponderosa and lodgepole pines, spruce, Douglas fir.	🟧
Coast	Douglas fir, cedar, hemlock, Sitka spruce	🟩
Grassland		🟨
Alpine and Arctic Tundra		⬜

PACIFIC OCEAN
ALASKA
GREENLAND
ATLANTIC OCEAN
HUDSON BAY
Hudson Strait
James Bay
COAST OF LABRADOR
NEWFOUNDLAND
R. St. Lawrence
Gulf of St. Lawrence
Northern Transition Section
Aspen Grove Section
UNITED STATES

Forest information prepared by the Dominion Forest Service. Base map and lithographic plates from Surveyor General's Office, Ottawa. Printed by the Geographical Section, General Staff, Department of National Defence.

favourable conditions of growth. It is particularly valuable for pulp, as its wood is heavier than that of other spruces. The red spruce *(Picea rubens)* is confined to the Province of Quebec and the Maritime Provinces and its wood is similar to that of the white spruce, with which it is commonly marketed. The western species, Engelmann *(Picea Engelmanni)* and Sitka spruce *(Picea sitchensis)* are confined to the interior and coastal regions of British Columbia, respectively. Engelmann spruce is similar to white spruce. Owing to the large size of the trees, Sitka spruce lumber may be obtained in greater dimensions free from defects than that of the other spruces. It is therefore used extensively in aircraft.

Pine.—There are nine pine species native to Canada, six of which are of commercial importance. Eastern white pine *(Pinus Strobus)* is the most valuable coniferous wood in Canada and for many years was the most important in point of quantity of lumber sawn and square timber produced. Owing to increased scarcity of good material, production has fallen and is now surpassed by spruce, Douglas fir and hemlock. The wood of the white pine is soft, easy to work, and has the valuable quality of holding its shape with a minimum of shrinkage or swelling, making it a most valuable wood for patterns. The western white pine *(Pinus monticola)* is similar in most respects to the eastern species but does not grow in pure stands as the eastern species often does. It is confined to the Province of British Columbia, while eastern white pine is found from eastern Manitoba to the Atlantic Coast.

The wood of the red or Norway pine *(Pinus resinosa)* of Eastern Canada is valued as structural timber as well as sawn lumber. It is easy to work and seasons uniformly, being slightly stronger than eastern white pine. Ponderosa pine *(Pinus ponderosa)* occurs in Canada only in the southern interior of British Columbia, where it is a valuable source of lumber for boxes and other requirements of the fruit industry of that region. The sapwood yields a fine quality lumber, light in weight, fairly soft, similar in texture to white pine, and suitable for pattern stock, fine woodwork, and other exacting uses. The heartwood is considerably heavier than the sapwood. Jack pine *(Pinus Banksiana)* occurs across Canada from Nova Scotia to Alberta and the valley of the Mackenzie River, and is used in large quantities for lumber, railway ties, pit-props, and poles; the manufacture of certain kinds of pulp from jack pine is also well established. Trees that reach lumber size are often cut and marketed with other species, such as spruce. Lodgepole pine *(Pinus contorta* var. *latifolia)*, found in British Columbia and western Alberta, resembles jack pine and is put to the same uses.

Douglas Fir.—Douglas fir *(Pseudotsuga taxifolia)* occurs in Canada from the east slope of the Rocky Mountains to the Pacific. It occurs commercially in the southern interior of British Columbia, but its main economic development is on the Pacific Coast. From the point of view of lumber production in Canada, it is second only to spruce. It is Canada's largest tree and is noted for its strength, relative durability, and the large dimensions of structural timber and clear lumber that can be obtained from it. It is used extensively for structural purposes, interior and exterior finish, flooring, and veneers for plywoods, as well as for railway ties and mining timbers.

Hemlock.—There are three hemlock species in Canada, two of which are valuable timber trees. The eastern hemlock *(Tsuga canadensis)* is abundant throughout its range in the eastern provinces but is not found west of the Province of Ontario.

The wood is used chiefly in construction, especially for house-framing and bridge-planking, but it also supplies the demand for a moderately strong wood for many purposes, including railway ties and mining timbers, while its bark is a valuable source of tannin. Western hemlock *(Tsuga heterophylla)* is found in Canada only in the Province of British Columbia. It has always been used extensively for box shooks and for pulp, but in the past its use for lumber has been overshadowed by Douglas fir. More recently, however, its excellent lumber properties and large size have resulted in its increasing use for all but the heaviest construction.

The True Firs.—In the genus *Abies*—the true firs—there are four commercial species. Lowland fir *(Abies grandis)* and amabilis fir *(Abies amabilis)* occur on the coast of British Columbia, alpine fir *(Abies lasiocarpa)* in the mountainous regions of British Columbia, and balsam fir *(Abies balsamea)* in Northern and Eastern Canada from the Atlantic to the Yukon. The wood of the four species is similar and is put to much the same uses, although the two western-coast species attain a much larger size than the others. The true firs usually grow in stands intermixed with spruce or hemlock and are usually cut with these woods, no differentiation being made between the species when marketed as lumber. They provide excellent wood for pulp and are used extensively for that purpose.

Cedar.—There are two species of the genus *Thuja* native to Canada. They are both of commercial importance, each in its own range. White cedar *(Thuja occidentalis)* is found from the Atlantic to the southeastern part of Manitoba, but does not extend as far north as some of the other conifers and is nowhere very plentiful, being confined to moist locations. Western red cedar *(Thuja plicata)* is found only in British Columbia. It is one of the giants of the Pacific Coast, being surpassed in size only by Douglas fir. Both the eastern and western species are extremely durable, surpassing the other conifers in this respect, and are used extensively as poles, posts and lumber, and generally where resistance to decay is important. The cedars produce over 70 p.c. of the wooden shingles cut in Canada. Western red cedar provides important amounts of long, clear, straight-grained material, and is being increasingly used for plywood. The light weight and durability of the wood make it especially suitable for construction of boats and canoes.

Tamarack or Larch.—Of the three native larch, two are of commercial importance. The eastern species *(Larix laricina)* is found in every province of the Dominion east of the Rocky Mountains, and grows usually in swampy locations. It is one of the strongest softwoods of Eastern Canada. While not an important lumber species, it is valuable for uses such as railway ties, piling and boat-building on account of its hardness, strength and durability. The western larch *(Larix occidentalis)* is found only in the southern interior of British Columbia and grows to a greater size than the eastern tamarack. The wood is hard, heavy and strong, resembling Douglas fir in these respects, and is used for railway ties, small structural timber, piling, and exterior and interior finish.

Birch.—Birch is Canada's most important hardwood. There are seven native species, but only two are of much commercial importance. Yellow birch *(Betula lutea)* grows in Ontario, Quebec, and the Maritime Provinces, and is the source of valuable lumber for flooring, furniture, cabinet-work and interior finish. It is used extensively for veneers and plywoods, as well as for railway ties. It is a hard, heavy, strong wood that works easily and takes a smooth finish.

The white birch *(Betula papyrifera)* has a wider distribution, being common from the Atlantic to the Pacific Coasts and is more abundant throughout its range than yellow birch. The tree does not attain the size of yellow birch, nor is the wood as heavy and strong. When of sufficient size it may be sawn into lumber, but for the most part its use is restricted to spoolwood and certain classes of turnery. The tough, easily split bark of this tree was used by the Indians for centuries for covering their canoes. A variety *(Betula papyrifera* var. *commutata)* occurs on the east and west coasts and in British Columbia where it often reaches sawlog size and is used for furniture and plywood.

Maple.—The maple is the second most important hardwood in Canada and is represented by ten native species scattered from the Atlantic to the Pacific. The sugar maple, or hard maple *(Acer saccharum)*, produces the most valuable lumber and, like birch, is used for furniture, vehicle stock and interior finishing. The sap of this tree is the principal source of the maple syrup and sugar of commerce. Red maple *(Acer rubrum)*, often called "soft" maple, has much the same uses as sugar maple except for exacting requirements of hardness and strength. Broad-leaved maple *(Acer macrophyllum)* occurs on the British Columbia coast, where it is manufactured locally into furniture and flooring.

Poplar.—The poplar species *(Populus)*, of which there are eight native to Canada, are widely distributed, one or more species being found in every province. The tree is fast-growing and produces a light-coloured, general utility wood of light weight. It is being used increasingly for veneers, match splints and boxes, and in the manufacture of pulp, particularly soda pulp. In the Prairie Provinces, where other species are not plentiful, it is also used for fuel.

Basswood.—Basswood *(Tilia americana)* is a valuable wood of light weight for cabinet-work of all kinds, cigar boxes and, in fact, wherever stability is required in a soft homogeneous hardwood. Its distribution is limited to the southern part of Eastern Canada.

Elm.—Elm is represented in Canada by three species, white elm *(Ulmus americana)*, slippery elm *(Ulmus rubra)*, and rock elm *(Ulmus Thomasi)*. The wood of these species is hard, heavy and tough, and is used for cooperage, boxes, veneer products for baskets and cheese boxes, vehicle stock, agricultural implements, and hockey sticks. Rock elm is a particularly valuable wood in boat-framing.

Minor Species.—Beech, oak, ash and red alder are all cut into lumber in various parts of the Dominion but, because of small supply or limited range, do not reach great commercial importance.

Section 3.—Forest Resources

The forested area of Canada is estimated at 1,290,960 sq. miles, or 37 p.c. of the total land area. In comparison, only 16 p.c. of the land area is considered to be of present or potential value for agriculture, and only 7 p.c. is now classed as "improved and pasture". The forested area within the boundaries of the nine provinces totals 1,167,960 sq. miles, or 58 p.c. of the provincial land area. About 478,000 sq. miles of the existing forests are classed as "unproductive". They are made up of small trees which cannot be expected to reach merchantable size because they are growing on poorly drained lands, or at high altitudes, or are subject to other adverse site conditions. These unproductive forests, however, perform valuable functions. They help to protect watersheds and conserve water supplies; they provide fuel and building materials to natives and travellers in remote areas; and they are the habitat of valuable fur-bearing and game animals.

The productive forests covering more than 813,000 sq. miles are considered capable of producing continuous crops of timber suitable for domestic and industrial purposes. A considerable proportion of these forests is not yet accessible to commercial operations, but constitutes a valuable reserve for the future. About 435,000 sq. miles of productive forests are considered to be economically accessible at the present time. One-half of the productive forest area bears trees large enough for use as sawlogs, pulpwood or fuel wood, and the other half is occupied by young growth of various ages, kinds and degrees of stocking.

The total stand of timber of merchantable size is estimated to be 311,201,000,000 cu. ft., of which 191,347,000,000 cu. ft. is accessible. These cubic volumes are volumes of wood that can actually be used. Expressed in commercial terms, the accessible timber is made up of 250,250,000,000 bd. ft. of logs in trees large enough to produce sawlogs and 1,684,710,000 cords of smaller material suitable for pulpwood, fuel, posts, mining timbers, etc.

Forest inventory surveys are conducted by the Dominion and Provincial authorities. Inventories for Manitoba and New Brunswick have been completed by the Dominion Forest Service and those of Nova Scotia and Prince Edward Island are now in progress. Publications describing the forest resources of Ontario and British Columbia have been issued by the forest authorities of those Provinces.

1.—Estimate of Total Stand of Timber in Canada, by Type and Size, and by Provinces and Regions

Province and Region	Conifers			Broad-Leaved			Totals		
	Saw Material	Small Material	Total Equivalent Volume[1]	Saw Material	Small Material	Total Equivalent Volume[1]	Saw Material	Small Material	Total Equivalent Volume[1]
Accessible	Million ft. b.m.	'000 cords	Million cu. ft.	Million ft. b.m.	'000 cords	Million cu. ft.	Million ft. b.m.	'000 cords	Million cu. ft.
Prince Edward Island..	65	560	61	40	240	28	105	800	89
Nova Scotia...........	4,850	23,165	2,939	1,600	5,940	825	6,450	29,105	3,764
New Brunswick.......	6,000	50,000	5,450	3,000	30,000	3,150	9,000	80,000	8,600
Quebec.................	41,110	453,330	46,755	14,390	176,120	17,848	55,500	629,450	64,603
Ontario..................	42,560	273,790	31,784	11,390	286,140	26,600	53,950	559,930	58,384
TOTALS, EASTERN PROVINCES...........	*94,585*	*800,845*	*86,989*	*30,420*	*498,440*	*48,451*	*125,005*	*1,299,285*	*135,440*
Manitoba..............	855	9,645	991	1,620	19,110	1,948	2,475	28,755	2,939
Saskatchewan.........	1,850	8,920	1,128	2,100	51,060	4,760	3,950	59,980	5,888
Alberta.................	7,000	74,400	7,724	2,080	36,000	3,476	9,080	110,400	11,200
TOTALS, PRAIRIE PROVINCES...........	*9,705*	*92,965*	*9,843*	*5,800*	*106,170*	*10,184*	*15,505*	*199,135*	*20,027*
British Columbia—									
Coast................	76,110	13,925	14,503	[2]	[2]	–	76,110	13,925	14,503
Interior..............	33,630	172,365	21,377	[2]	[2]	–	33,630	172,365	21,377
TOTALS, BRITISH COLUMBIA............	*109,740*	*186,290*	*35,880*	[2]	[2]	–	*109,740*	*186,290*	*35,880*
Totals, Accessible.....	**214,030**	**1,080,100**	**132,712**	**36,220**	**604,610**	**58,635**	**250,250**	**1,684,710**	**191,347**
Totals, Inaccessible[3]..	**176,345**	**873,385**	**107,531**	**3,700**	**136,260**	**12,323**	**180,045**	**1,009,645**	**119,854**
Grand Totals.......	**390,375**	**1,953,485**	**240,243**	**39,920**	**740,870**	**70,958**	**430,295**	**2,694,355**	**311,201**

[1] Cubic volumes do not include wood in stumps and unusable tops.
[2] There are no available estimates of the relatively small quantities of hardwoods in British Columbia.
[3] Including estimates of stands in the Northwest Territories and Yukon.

NOXIOUS FOREST INSECTS AND THEIR CONTROL

NOTE.—This article has been prepared by J. J. de Gryse, Chief, Forest Insect Investigations, Division of Entomology, Department of Agriculture, Ottawa. This account of the activities of the Forest Insect Investigations Unit of the Dominion Division of Entomology would not be complete without acknowledgment of the generous co-operation received from numerous outside organizations, foremost among which are the Dominion and Provincial Forest Services, the Canadian Pulp and Paper Association, the Ontario Forest Industries Association, the Quebec Forest Industries Limited and the Canadian Lumbermen's Association. Special mention should be made of the assistance given by the Quebec Forest Entomological Service in the Dominion Forest Insect Survey. In all projects common to Canada and the United States, the closest contact has been maintained with the United States Bureau of Entomology and Plant Quarantine, the forest entomologists of the northeastern States and the several boards and committees organized by the industry for the promotion of forest insect control.

EXTENT AND CHARACTERISTICS OF THE PROBLEM

A sound appreciation of the losses caused by forest insects over a given period of time cannot be based only on an estimate of damage to productive forests because insect outbreaks in inaccessible stands may have an important bearing on the fate of commercial forests. A common but erroneous practice is to evaluate insect damage by a measure of dead or dying stands and to ignore the depreciation entailed by the ravages of insects which actually do not kill the timber but merely render it unfit for profitable utilization. Loss of increment resulting from repeated attacks of defoliators is rarely, if ever, taken into consideration. The same may be said of loss of vitality, the effects of forest depletion on the so-called forest influences, the deterioration of fire-killed timber and of logs left in the woods. Increased fire risk in insect-killed stands, damage to stored stock, and even to manufactured articles, as well as a number of other factors should be taken into account to give a true idea of the destructive role played by insects affecting forests and forest products.

The losses thus sustained in Canada, as a result of insect depredations, although they cannot be accurately computed, are no doubt appalling. Some years ago an outbreak of the European larch sawfly destroyed practically all commercial larch stands in Eastern Canada. Since 1909, the spruce budworm has taken a toll of about 250,000,000 cords of spruce and balsam. The eastern spruce bark-beetle, the hemlock looper, the jack pine sawfly, the black-headed budworm, the balsam woolly aphid, and several other species have all, at one time or another, appeared in destructive numbers over large areas. In some cases the changes brought about in the composition of the forest by insect outbreaks have been distinctly prejudicial to the commercial value of succeeding stands—more useful species having been replaced by less valuable ones. When fire follows in the wake of such outbreaks it may take centuries to repair the damage. At best, a merchantable forest crop, once lost, cannot be replaced in less than 50 to 100 years.

EXTENT OF RECENT LOSSES AND INSECT PESTS CAUSING THEM

The Spruce Budworm.—The first authentic report of a spruce budworm outbreak in Canada dates back as far as 1807, when parts of Maine, New Brunswick and Quebec were affected. Information on this outbreak is rather fragmentary; how much damage was caused is unknown. Seventy years later another outbreak was active in the same general region. Damage was severe and extensive. This outbreak lasted probably about 4 or 5 years. Then, after a lapse of 30 years, the budworm again appeared on the scene. This was in 1909. It is difficult to understand how very few people realize what has transpired in the Canadian forests since that date. One outbreak after another has occurred in an uninterrupted series. As previously stated, about 250,000,000 cords of spruce and balsam have fallen prey to the budworm between 1909 and 1946. Statistics of this kind make little or no impression on our imagination. Let us put it another way. Suppose that all the spruce and balsam killed in Canada by the budworm in the past 37 years were sawn into 4-ft. logs. Suppose also that, after the fashion of piling a cord measure, we attempted to heap this wood in lots 8 feet long, 4 feet wide and 4 feet high, each pile being contiguous with the next. When our job is finished we would have a band of wood 4 feet in height and 60 feet in width, completely encircling the earth at the equator.

The following statement shows the extent of the areas infested by spruce budworm during the period 1936-45:—

	Ontario	*Quebec*
	sq. miles	sq. miles
Large portion of balsam, dead or injured beyond recovery	19,000	3,360
Balsam heavily attacked, beginning to die singly or in groups	24,500	15,520
Total area seriously affected	43,500	18,880
Total area lightly infested	115,000	20,000[1]
GRAND TOTALS	158,500	38,880

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[1] Approximate.

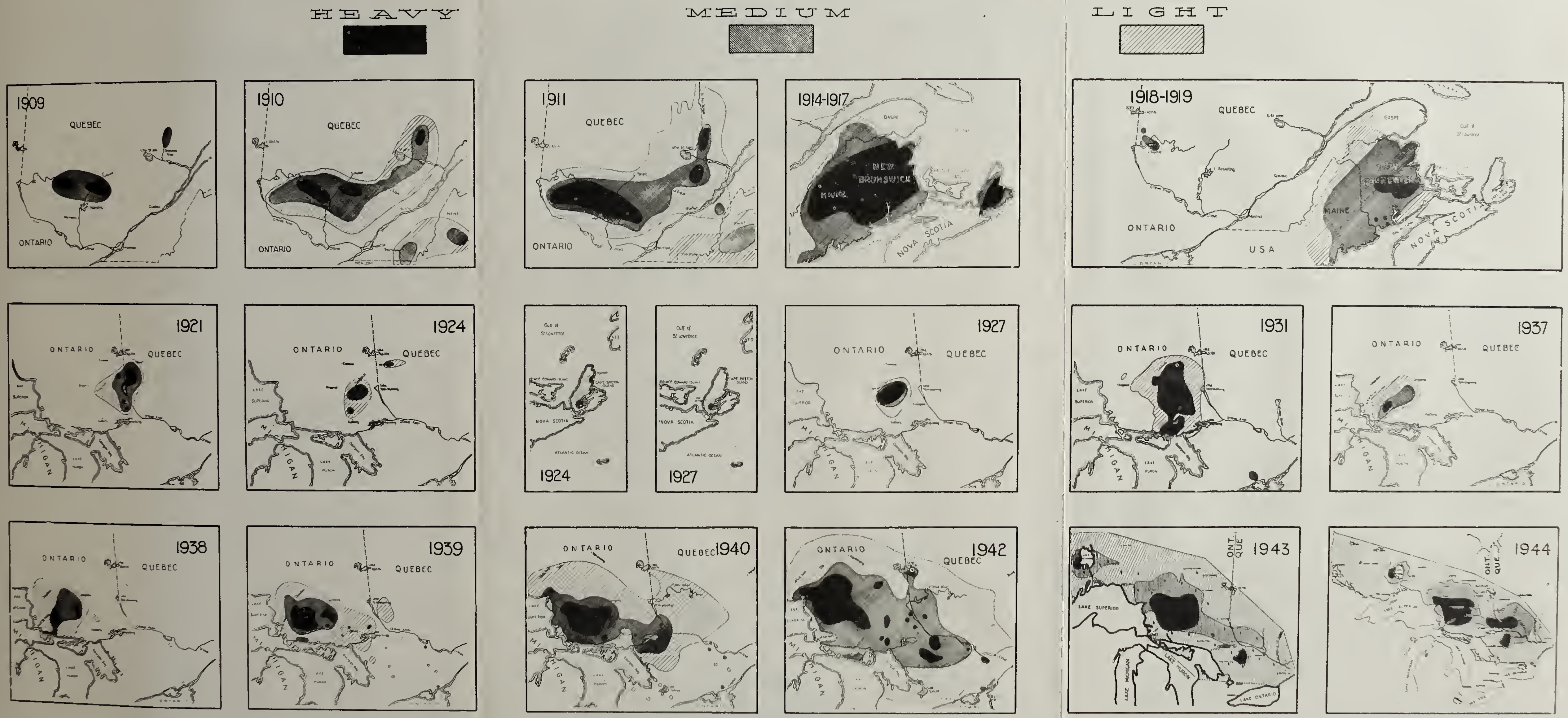
These figures represent over-all measurements of the areas affected. They give no idea of the actual size of white spruce and balsam stands in these areas. The apparent spread eastward into Quebec, practically as far as the St. Maurice Valley, is the most important recent development in the spruce budworm situation.

To place a value in dollars and cents on these losses either to the Government in stumpage dues or to industry in raw materials, would be extremely difficult. Some parts of the destroyed forest had probably little or no commercial value, others could have yielded substantial financial returns. Such computations of direct losses, either in money or raw material, are little better than a post-mortem: they are apt to obscure our undertanding of the real issues involved. The repercussions of a budworm epidemic are felt for many years after the trees have died. Increased fire hazard is perhaps the most immediate effect. It is humanly impossible to control a fire in an area littered with dead trees, nor is it usually possible to confine it to that area. Such fires burn with unbelievable intensity, often causing serious damage to the site, after which floods and erosion put the finishing touch to this picture of desolation.

But the most far-reaching consequence of a budworm outbreak, and the one which should cause us more concern than any other, is the profound change in the composition of the succeeding stands. For years lumbermen, paper manufacturers, and foresters have noticed, with serious apprehension, the apparent inadequate regeneration of spruce and its consequent replacement by balsam in many forest areas. This state of affairs is by no means general, but it obtains in a great number of the most accessible localities. Failure of spruce regeneration is attributed to several causes inherent in the species: (1) inability of spruce seedlings to root in thick layers of moss, raw humus, or forest floor debris; (2) lower seed production than balsam (less frequent seed years); (3) lower degree of shade tolerance than balsam. Two external factors should be added; namely, certain methods of cutting, and the spruce budworm. The latter are interdependent to a considerable extent.

FLUCTUATIONS IN SPRUCE BUDWORM OUTBREAKS IN THE FORESTS OF EASTERN CANADA

1909 – 44


HEAVY
MEDIUM
LIGHT
1909
QUEBEC
ONTARIO
1910
QUEBEC
ONTARIO
1911
QUEBEC
ONTARIO
1914-1917
GASPE
NEW BRUNSWICK
MAINE
NOVA SCOTIA
1918-1919
QUEBEC
GASPE
NEW BRUNSWICK
MAINE
NOVA SCOTIA
ONTARIO
USA
1921
ONTARIO
QUEBEC
1924
ONTARIO
QUEBEC
Gulf of St Lawrence
PRINCE EDWARD ISLAND
CAPE BRETON ISLAND
NOVA SCOTIA
ATLANTIC OCEAN
1924
Gulf of St Lawrence
PRINCE EDWARD ISLAND
CAPE BRETON ISLAND
NOVA SCOTIA
ATLANTIC OCEAN
1927
1927
ONTARIO
QUEBEC
1931
ONTARIO
QUEBEC
1937
ONTARIO
QUEBEC
1938
ONTARIO
QUEBEC
1939
ONTARIO
QUEBEC
1940
ONTARIO
QUEBEC
1942
ONTARIO
QUEBEC
1943
ONT.
QUE.
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ONTARIO
1944
ONT.
QUE.
MICHIGAN
LAKE SUPERIOR
LAKE HURON

It has been observed, over and over again, that after a budworm outbreak, the percentage of balsam in the new stand is noticeably higher than it was in the old. The extraordinary accumulation of debris on the surface, while seriously hampering spruce regeneration, seems to offer no obstacle to the rooting of balsam. Root competition and competition for light further impede the growth of spruce that may succeed in becoming temporarily established. Generally speaking, the predominance of balsam is such as to reduce materially the possibility of its replacement by the residual spruce for several rotations if not forever. Under absolutely normal conditions, it is conceivable that sooner or later—in some localities—a spruce climax might develop from such antecedents. However, when repeated spruce budworm outbreaks enter into the picture, all such hopes vanish. It is a conservative estimate—probably an understatement—to say that, in many regions, any forest containing over 30 p.c. of balsam is more than likely to succumb to budworm attack upon reaching maturity. When this happens, not only the balsam but the greater part of the white spruce associated with it will be killed and the forest will enter a new and more advanced stage in the succession towards a pure balsam stand.

The European Spruce Sawfly.—In 1930 it was discovered that over an area approximately 2,000 square miles in extent, situated in the Gaspe Peninsula of the Province of Quebec, the spruce trees had been severely defoliated by the larvæ of a sawfly. Specimens submitted to specialists in the United States and in England were determined as *Gilpinia hercyniæ* (Htg.), a species native to Europe. By 1938 the area of heavy infestation had increased to approximately 12,000 square miles and the insect was known to be present in greater or lesser numbers throughout Eastern Canada as far west as Sudbury, Ont., and in the United States as far south as New Jersey.

The sawfly attacks all species of spruce grown in Canada. The larvæ feed principally on the old needles and usually do not attack the new growth until the supply of old needles has been exhausted. This type of feeding has the effect of retarding the decadence and death of infested trees. The ability of the tree to survive repeated attacks of the sawfly is offset somewhat by the fact that the insect is exceedingly prolific. Its progeny consists almost exclusively of females, and mating is unnecessary for fertilization of the eggs. The sawfly, moreover, is able to survive the most rigorous climatic conditions and, being of European origin, was at first almost completely free from attack by parasites. The main control factors operating against it, at that time, were small mammals, principally mice and shrews. These fed upon the cocoons in which the larvæ overwinter under the debris on the forest floor. Although perhaps between 40 and 50 p.c. of the cocoons was destroyed yearly in this way, the ultimate control effected by mammals, birds, native predacious and parasitic insects, was not sufficient to prevent a marked yearly increase in the intensity and spread of the infestation.

Estimates made in 1939 showed that, in the heavily infested areas on the upper Cascapedia River, 24·8 p.c. of the volume of white spruce and 27·4 p.c. of the black spruce were killed by the sawfly. These figures do not include the mortality due to an apparently independent outbreak of the eastern spruce bark-beetle between 1931 and 1934. During this period, 44·4 p.c. of the white and 5·6 p.c. of the black spruce were destroyed by the beetle, giving a total mortality for the region of about 69 p.c. of white and 33 p.c. of black spruce. In other parts, the mortality rates varied considerably from locality to locality. However, the number of trees actually killed by the sawfly did not give a true appraisal of the situation; the chances of survival of the remaining trees constituted an equally, if not more, important factor. In many extensive areas in Gaspe and elsewhere the probability of recovery was gradually decreasing year by year and in the older centres of infestation it was virtually nil. Then a remarkable thing happened. In 1936, entomologists studying the spruce sawfly infestation began to discover indications of the presence of a mysterious disease which caused a high percentage of mortality among the larvæ in a number of localities. This disease appeared to be caused by a virus and spread with phenomenal rapidity over practically the entire range of the distribution of the sawfly. In heavy infestations the mortality of larvæ reached as high as 99·7 p.c. By 1942, the spruce sawfly problem had, for the time being, been relegated to secondary rank in economic importance.

The Jack Pine Budworm.—While the European spruce sawfly was gradually making inroads into the forests of Eastern Canada, the jack pine budworm, a native species, began to appear in outbreak form in northwestern Ontario and Manitoba. Although there can be no parity between the two infestations from the standpoint of the national economy as a whole, the jack pine budworm presents a problem of the first rank for the lumber and paper industries in the affected territory.

The jack pine budworm is either a new species or a biological race or strain of the notorious spruce budworm from which it differs in habits rather than in form. It exhibits such a marked preference for pine instead of spruce or balsam that, from an economic standpoint, it must be considered as constituting a distinct problem. The principal injury caused by the budworm consists in the defoliation of the host-tree. Usually the tops of the crowns suffer more severely than the lower parts, resulting in the formation of stag-heads which are a striking characteristic of infested stands. Repeated heavy defoliation or complete defoliation before the formation of the next year's buds is fatal. Although large trees are likely to succumb first, young trees growing under them are frequently killed by larvæ which drop from the older trees. Thus far, comparatively few trees have been killed outright, but the production of stag-heads is very general in heavily-infested stands and is likely to favour the entrance of rots and secondary insects which may ultimately either kill the tree or render it unfit for utilization except as firewood.

The Approach to the Problems Involved

The widespread belief that such insects as the spruce budworm, the spruce bark-beetle, the European spruce sawfly, etc., are inherently noxious and that the sole reason for their existence is to cause calamities, should be deprecated "in season, and out of season". In the natural order of things, insects are part and parcel of that great economy commonly referred. to as the "balance of nature". The forest is a vast biological unit composed of plants and animals; it is perpetually subject to changes through the succession of species and individual organisms competing with each other for a place in the sun, and its composition at any one point of time is the resultant of the complicated interaction of all its vegetational and animal components, itself again dominated by climatic and edaphic conditions. In this intricate scheme of relationships insects play a dual regulatory role. Some, namely the herbivorous species, act upon the vegetation while others, endowed with carnivorous instincts, control the excessive multiplication of the first. Vegetarian insects may be roughly divided into two great classes: those that feed upon healthy, living trees and are therefore designated as primary; and those that attack only sickly, dead, or dying trees and, as such, are usually considered as secondary.

From the standpoint of man's economy, the primary insects are, potentially at least, the most injurious, and the majority of so-called destructive species are found among them. From the standpoint of nature's economy, they really act as useful protectors of those tree species whose existence becomes threatened by the undue dominance of others. Generally speaking, secondary insects, by hastening the death of weakened trees or by contributing to the decomposition of dead trees, are useful agents in the regeneration of forests, by the removal of trees that have reached the natural limit of their existence.

When, therefore, we refer to insects as pests or destructive enemies of the forest we speak in terms of human relationships and we forget that, more than often, man himself is the prime mover in the calamities which are visited upon him. Knowledge of insect ecology is still very imperfect and it would be absurd to pretend that all the causal relationships underlying the rise and fall of any one insect outbreak can be determined. However, the fixing of man's responsibility is, in many cases, a comparatively simple matter. Improvident and reckless exploitation, ill-planned reforestation, destruction of wild life, fire, and the importation of insect species from foreign lands are broad categories under which man's offences may be readily classified. In planning measures of prevention and control, our first concern must be the regulation of man's activities and the correction of his mistakes. In some cases, appropriate legislation is the only course, in others the education of the individual will be more effective. In any event, whether legislative or educational procedure is to be adopted, it should be based at all times upon as thorough a knowledge of natural processes as it is possible to obtain.

Dominion Government Organizations for and Method of Dealing with the Problem

The study of forest insect problems in Canada is entrusted to the Forest Insect Investigations unit of the Division of Entomology, Science Service, Department of Agriculture. Forest entomology, as distinct from other phases of entomology, became a special section of the Dominion Entomological Service in 1911 and was formally established as a division in 1916. In the course of the recent general reorganization of the Department of Agriculture, forest entomology was ranked as a unit or section of the Division of Entomology. The headquarters of this service is at Ottawa and laboratories are maintained at Ottawa, Ont.; Sault Ste. Marie, Ont.; Fredericton, N.B.; Winnipeg, Man.; Indian Head, Sask.; Vernon, B.C.; and Victoria, B.C. Sub-laboratories are operated at Laniel, Que.; the Petawawa Forest Experiment Station at Chalk River, Ont.; Trinity Valley, B.C.; and Cowichan, B.C. Temporary field stations and camps exist at a number of places throughout the Dominion. The personnel engaged in forest entomology consists of 20 permanent employees, 138 temporaries, and a number of labourers who are hired whenever need for their services arises. Recommendations for increase in permanent staff have been submitted; the greater part of the present permanent staff consists of officers specially trained in entomological research. The work accomplished by the unit may be classified under four headings: surveys, fundamental studies, emergency projects and control operations.

Surveys

Surveys provide the basic information both for fundamental studies and for the treatment of emergencies. Not only are they indispensable in the timely discovery of incipient outbreaks, but they furnish a systematic inventory of assets as well as liabilities in the rational management of the forest insect fauna. In view of the enormous expanse of territory to be covered, any survey system of this kind must rely on the close co-operation of all parties interested in forest conservation. An efficient organization has been in operation in Canada since 1936. Practically all the important government and commercial agencies concerned with forestry or forest exploitation take an active part, and extensive use is made of their personnel (approximately 2,500 men) in the collection of information. The country has been divided into five regions roughly corresponding to some of the natural divisions of the forest. In each of these a central laboratory serves as a clearing house for specimens and information received. The complete results for the entire Dominion are collated yearly at the Ottawa headquarters. At present, the system is based on the collection of samples of live insects and the submittal of concise, pertinent reports by rangers and wardens. All specimens are reared at the various laboratories receiving them. A wealth of information on insect conditions, heretofore unavailable, has already been collected in this way and is being used for further study and for practical application in control operations. An idea of the progress made may be gained from a comparison of the number of reports received during the years 1936-44.

Year	*No. of Reports*	*Year*	*No. of Reports*	*Year*	*No. of Reports*
1936........	528	1939........	8,310	1942........	13,210
1937........	3,703	1940........	10,081	1943........	10,254
1938........	5,117	1941........	11,326	1944........	10,238

The instruction of forest rangers on making observations and insect collections is an important phase of this work. Whenever possible, short courses are given at various points during the winter or spring and these are supplemented by field demonstrations throughout the summer season.

Seventeen forest insect rangers were appointed by the Dominion Government in 1945 for the express purpose of directing the field work of the rangers employed by the Provincial Services and the forest industries. In 1946, an additional 25 specially trained rangers were added to the original number and, eventually, a corps of approximately 75 men will be available for this work throughout the Dominion. Besides instructing and guiding the regular forest rangers, these forest insect rangers will make special collections and reports in their respective territories and will be employed singly or in groups on projects of many kinds, such as estimating damage, laying out sample plots, rearing insect material, and supervising mass collections whenever the occasion demands.

Fundamental Studies

Fundamental studies are designed particularly with a view to unravelling the mysterious maze of relationships which underlies the fluctuations in insect populations. Although, at present, they are purely scientific in scope, there cannot be the least doubt that ultimately they will lead to eminently practical results in the prevention and control of insect outbreaks. The thorough investigation of the biotic and physical factors influencing insect behaviour and reproduction will eventually eliminate much that is now empirical and uncertain from the practice of forest entomology. In the future all such fundamental studies will be conducted by the personnel of the laboratory at Sault Ste. Marie, Ont. This laboratory was erected in 1945 by the Department of Lands and Forests of the Province of Ontario and has been placed at the disposal of the Dominion Department of Agriculture with the understanding that the institution will be operated jointly by the two Departments concerned. The building and its maintenance are contributed by the Provincial Government, while equipment and staff are provided by the Dominion. A Board, consisting of representatives of both Departments, acts as the co-ordinating agency. The erection of this new laboratory marked one of the most important developments in forest entomology in Canada. The over-all dimensions of the structure are 150 feet by 64 feet. Two refrigerator rooms and four air-conditioned rearing rooms are located in the basement together with the machinery required for their operation. Storage space for field and laboratory equipment, a photographic room and a laboratory equipped with incubators of various types to be used in special experiments occupy the remaining space underground. The ground floor contains three administrative offices, a combined library and lecture room, a large general laboratory, five private laboratories, a drafting room and a spacious hall which serves as a museum. Advantage has been taken of all known advances in laboratory construction and the building itself is modern in design.

Unfortunately, owing to the scarcity of adequately trained forest entomologists in this country, it may take several years to bring this laboratory to the peak of its efficiency. Two sub-laboratories at Petawawa, Ont., and Laniel, Que., are engaged in field studies of ecological factors: the first is concerned with forests under intensive management; the second with forests under more or less natural conditions.

Emergency Projects

The last subdivision of activities in forest entomology is the one which deals with emergencies or, in other words, the problems of the hour. That it should have a more universal, popular appeal than the other two is readily understood. Sudden and spectacular outbreaks of insects, whether of local or country-wide importance, usually cause considerable alarm, and urgent appeals are made for immediate action. The entomologist must resort, at first, to his stock-in-trade, that is to say, to palliatives and remedies of more or less proved or even sometimes uncertain value. He must do as best he can and, in the meantime, make use of every opportunity to increase his knowledge and improve his methods. For this reason, any extensive operation in forest-insect control is always accompanied by a thorough-going study of the bionomics of the species involved.

Control Operations

Control operations may be broadly classified as silvicultural, biological, chemical and mechanical. Mechanical and chemical methods have only a limited application under conditions such as prevail in the Canadian forests. In nurseries, plantations, small parks and resorts, and in small-scale operations in the forest, they have a definite place. In recent years some of them have been successfully employed in the control of bark-beetles by the burning of brood trees; in the prevention of injury from wood-borers by brushing over log piles and immersion of logs in water; in the reduction of hemlock-looper and spruce budworm infestations by means of poisons distributed from aeroplanes. It is becoming increasingly evident that silvicultural and biological methods offer the best solution of the majority of our forest-insect problems. At the same time, it should be realized that usually a combination of several methods is required to attain the best results as it is a serious but common mistake to place too much confidence in the efficacy of any one single procedure.

Silvicultural Control.—The practice of silvicultural methods in the control of insects is beset with serious difficulties.

First among these is the fact that operators generally have not arrived at a realization of either the necessity or the advantages of rational silvicultural practices. In other words, they do not consider them profitable under the present conditions. This is no doubt due, primarily, to the fact that virgin stands are still available. As time goes on and as the depletion of the forest progresses, the present attitude towards silviculture in commercial forestry will gradually become altered; in fact, some companies are already looking towards scientific management of their forests with a view to ensuring continuous production. The second difficulty arises from the necessity of having to admit that knowledge of the factors involved is, as yet, extremely rudimentary. One principle seems to be fairly well established, namely, that the application of cultural practices will neither be effective nor profitable in the prevention or reduction of insect infestations unless the conditions that are favourable to the growth of trees are also, at the same time, either unfavourable or less favourable to the development of insects. Experience has shown that, in many cases, such a mutual inverse relationship exists. But there are exceptions. Other generalizations concerning the composition of the stand, the influence of site, density, crown cover, age, cutting methods, etc., cannot be made without considerable caution. The characteristics of each insect, of each tree species, and of each locality need to be investigated.

Cultural practices have been recommended in the case of the spruce budworm, the jack pine budworm, the bronze birch borer, the white-pine weevil, the locust borer, and many other insect pests of the forest; very often, however, many years will be required before such recommendations can be put into practice.

Recently, as a result of recommendations of the Advisory Committee on Forest Entomology and Pathology of the Woodlands Section, Canadian Pulp and Paper Association, arrangements have been made to establish an area in northern New Brunswick for the investigation of the problems of managing a balsam-spruce forest so as to prevent, or reduce to a minimum, loss from spruce budworm outbreaks. The Green River watershed appeared particularly suitable for several reasons, not the least of which was the willingness of one of the leading pulp and paper companies operating in this area to co-operate in the work. This Company has given every assistance possible by making available their records and maps and facilitating examination of the region.

A committee was appointed to plan the work, to study the results, and to make recommendations regarding the management of the area.

The original purpose of the project was to determine for a specific area the kind of management necessary to produce and maintain resistance to budworm outbreaks. This cannot be considered separately from the other objects of management, all of which contribute to the ultimate end, namely, profitable continuous operation of the area. Sustained yield will be impossible if periodic outbreaks are allowed to destroy a large part of the forest. At the same time, the methods used to create resistance to insect damage must also give protection from wind, fungi and fire, and produce the maximum practicable growth of the kind of wood needed. They must aim at regulating the cut so as to create a forest with a distribution of age classes which will permit approximately equal annual cuts of mature timber in the future.

Biological Control.—Of late, most important advances have been made in biological control. Although the use of natural enemies, more particularly insect parasites and predators, in fighting destructive insects has been practised for centuries in many countries, it is only in comparatively recent years that this method of control has been placed on a scientific basis and applied on a large scale. The campaign against gypsy and browntail moths in the United States was largely responsible for this development in entomology.

Biological control has been used almost exclusively in dealing with insects accidentally imported from other countries. This was a most logical deduction from the realization that introduced insects constitute a special menace by the very fact that they are free from the parasites and predators which help in keeping them in check in the country of their origin and that, usually, they are quite immune from attack by native species. In Canada, the importation and propagation of foreign parasites have produced gratifying results. The European Lecanium scale and the satin moth have been successfully combated and a considerable measure of control has apparently been achieved in some areas by the introduction of parasites against the European larch sawfly. It was only natural, therefore, that when the problem of the European spruce sawfly arose, the importation of suitable parasitic species should have been resorted to at once. The seriousness of the situation fully warranted the expenditure of all the effort put forth in an attempt at stemming the progress of the infestation. In all, some 23 species have been tested to date and, although many of them have not been recovered in the field since the day of their liberation, this should not be interpreted too readily as being a sign of absolute failure. As a matter of fact, the latest reports tend to show that the efficacy of introduced parasites is very definitely increasing. The species most likely to play an important role in the control of the spruce sawfly are the cocoon parasite *Dalbominus* (*Microplectron*) *fuscipennis* (Zett.) and four larval parasites: *Exenterus amictorius* (Fab.), *E. claripennis* (Thom.), *E. vellicatus* (Cush.) and a species of *Sturmia*. It would appear that, for the present at least, *Exenterus* and *Sturmia* are more persistent than *Microplectron* when the numbers of the host are at low levels. In spite of many difficulties attending the collection of material for study and the consequent likelihood that actual parasitism may have been underestimated, more larval parasites were collected in 1945 than in the eight previous years combined. It seems quite probable, therefore, that at least the four above-mentioned species will increase in effectiveness from year to year.

The extensive use of insect parasites in combating introduced pests in itself constitutes an argument for further investigation of similar practices in dealing with certain native species. Several lines of endeavour are more or less clearly indicated. Among others are: the study of the effect of species already introduced; new introductions for specific purposes, especially when it appears that native parasites are not adequate; and also more intensive studies of native parasitic fauna and of methods by which its present effectiveness might be increased. Some steps have already been taken in this direction and it may reasonably be expected that, in years to come, this phase of biological control will become increasingly important in the field of applied entomology. In their work on parasites, the forest entomologists co-operate closely with the Dominion Parasite Laboratory at Belleville, Ont. This Laboratory is one of the most modern institutions of its kind in the world. It is adequately equipped for the importation, propagation and liberation of parasites in large numbers.

In the paragraph on losses resulting from insect outbreaks, casual mention was made of the "virus" disease of the European spruce sawfly. The spectacular manner in which this malady contributed to the rapid decline of one of the most dangerous forest pests has brought about a fairly general realization of the potentialities of disease organisms as factors in the control of insects. Although the case of the spruce sawfly disease is perhaps better known than any other by the general public, it does not stand alone in the history of entomology. In the past, too little attention has been paid to disease as a potential ally of man in his struggle against insects. Belief in the efficacy of diseases has been lacking partly because, under natural conditions, their spread is sometimes too slow to prevent serious damage by the insects and partly because many previous attempts at dissemination of disease have met with utter failure. In the opinion of experts, this lack of success should be largely attributed to lack of information concerning the viruses themselves and to failure to appreciate some of their unusual characteristics. In the light of advances made in the past few years, it seems safe to assert that any method by which these diseases may be speeded in their spread and activity is economically justifiable. With this object in mind, the Division of Entomology recently initiated a preliminary program of studies of diseases attacking the spruce sawfly and the black-headed budworm. In 1946, these studies were intensified and extended to include investigations of new possibilities in connection with the control of the spruce budworm and other major forest pests. It is planned to erect a special laboratory for the study and propagation of insect diseases at Sault Ste. Marie, Ont., in 1947.

Chemical Control.—The discovery of the insecticidal properties of DDT has greatly stimulated both research and public interest in the field of chemical control. DDT is one of the most powerful insect poisons known to science. Its uses will be many and varied. It is not likely, however, that it will ever become the "nostrum" into which it has been built up by well-meaning but ill-informed publicity. In forest entomology its uses will be limited, like those of any other insecticide, by the physical and financial difficulties attending its application. The best that may be hoped for is that it will serve as a temporary means of protection of comparatively small areas supporting valuable stands and, in some cases, as an efficient method of stopping outbreaks before they reach excessive proportions. The usefulness of spraying operations of any kind will always be conditioned by several prerequisites, especially by continuous and thorough forest-insect surveys.

Preventive Measures

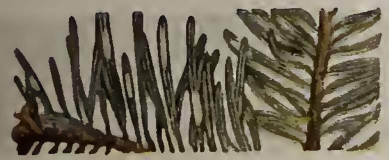
Control of Importation.—The realization that "an ounce of prevention is better than a pound of cure" is of particular value in dealing with foreign pests. For this reason, the Plant Protection Division of the Department of Agriculture exercises continual, unrelenting vigilance over the importation of plants and plant products from other countries. The function of this Division is well summarized in Regulation I of the Destructive Insect and Pest Act:—

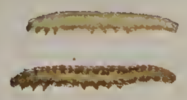
> All trees imported are subject to the requirement of a permit issued by the Secretary of the Destructive Insect and Pest Act Advisory Board. The importations must enter through one of several ports of importation established in Canada, and in addition to being accompanied by a certificate of inspection from the country of origin, are subject to reinspection on arrival in Canada either at the port of importation or after delivery to the premises of the importer. No importations may be released from customs without authority under the above Act involving an inspection or clearance certificate issued in Canada, in addition to the permit.

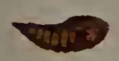
Special regulations are drafted whenever new emergencies arise and are so designed as to ensure as complete protection as is humanly possible against the introduction of dangerous insects and diseases into Canada. Several important interceptions of forest pests have been made from time to time under these regulations.

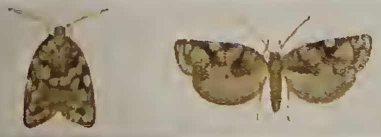
COMMON CANADIAN FOREST INSECT PESTS

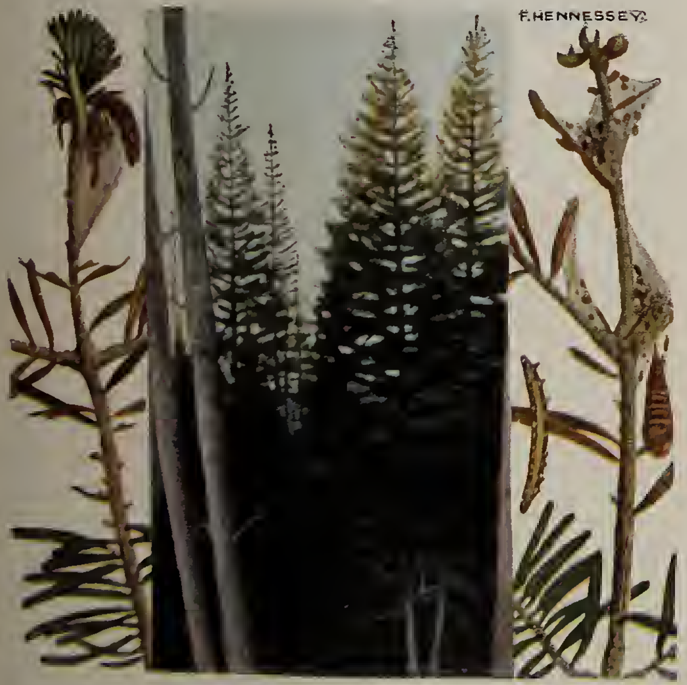
The Spruce Budworm


Egg masses on needles (natural size)


Caterpillars (nat. size)


Pupa (nat. size)


Moths (nat. size)

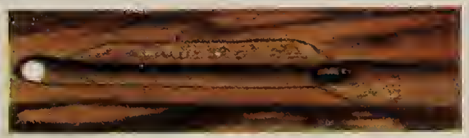


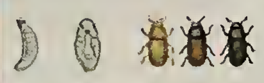
Infested twig, early feeding

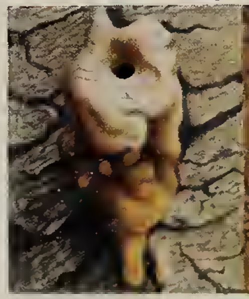
A budworm outbreak, balsam forest

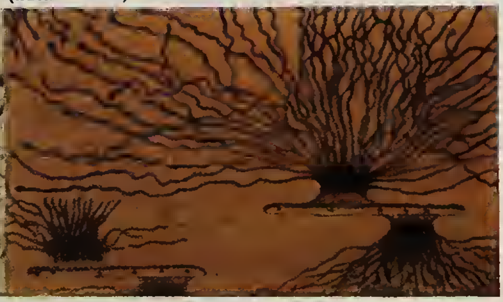
Infested twig, end of feeding

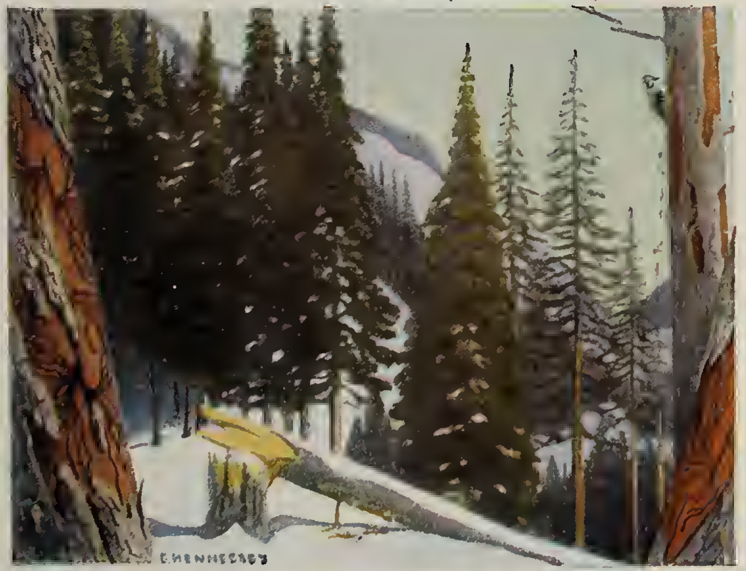
The Eastern Spruce Bark-beetle


Inner surface of bark, tunnel, beetle and eggs (natural size)


Grub Pupa Beetles

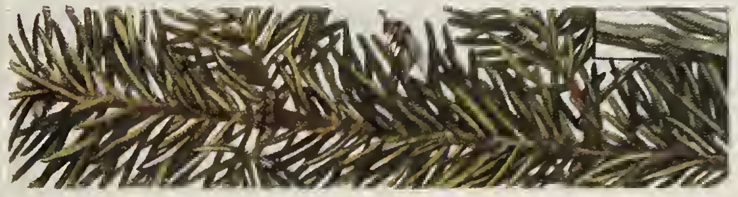

Pitch tube (nat. size)

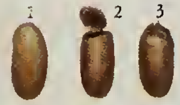

Inner face of bark showing tunnels (reduced in size)



An infestation showing killed trees and dying yellowish trees

The European Spruce Sawfly

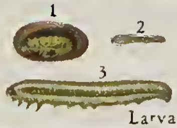

Eggs laid singly in the needles. Adult making slit



Cocoons

1. Sound 2. Fly emerged

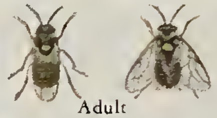
3. Eaten by shrew

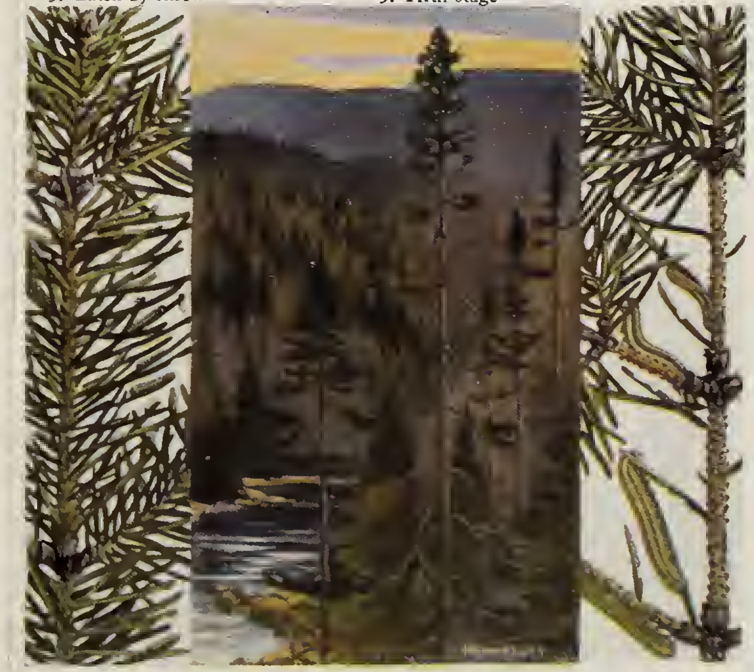


Larval Stages

1. Hibernating 2. Young stage

3. Fifth stage


Adult


Early Feeding

Attack on spruce-balsam forest

Late Feeding

Fir green, spruce grey

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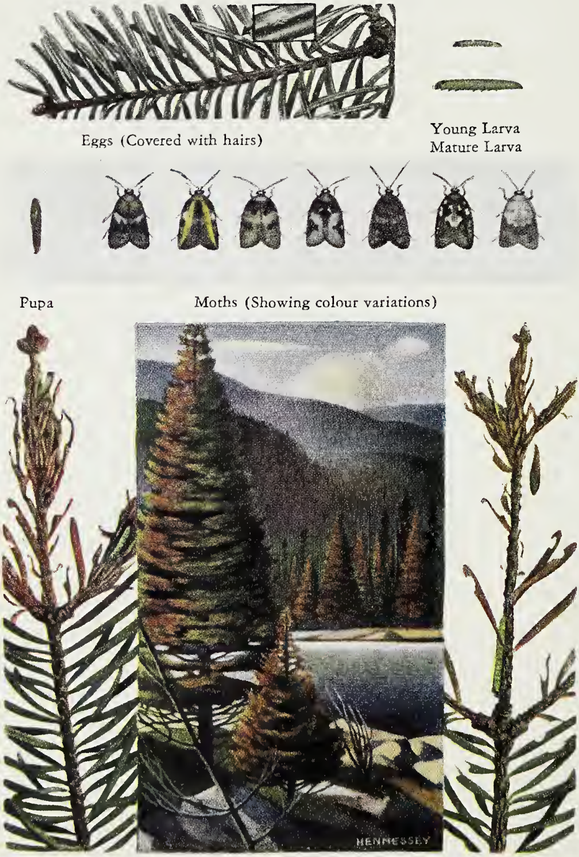
The Black-headed Budworm



Eggs (Covered with hairs)

Young Larva
Mature Larva

Pupa

Moths (Showing colour variations)

1st year's attack

Appearance of infested area in August

2nd year's attack

Salvage of Affected Timber

No matter how efficient the organization for combating forest insects may become, it will always be necessary to devise ways and means for the profitable utilization of timber damaged in the course of infestations. Under present conditions, forest entomologists are required to give advice on salvage in connection with almost every infestation of importance. Full information concerning the present and future state of the forest is required as the basis for cutting plans whereby losses due to insects may be reduced to a minimum. To make pronouncements in such matters places a very grave responsibility upon the entomologist and requires a knowledge of all important factors in the development of outbreaks. It is practically necessary to study each outbreak and each area individually and to determine the condition of the forest, the severity of the attack, the probable rate at which the infestation will develop in the near future, as well as the rate of deterioration of the timber subsequent to death from insect attack. Therefore, in the collection of data, the co-operation of companies and forest services is indispensable. A system of regular reporting has been developed for this purpose. Special report forms have been prepared for those who wish to avail themselves of this service. Prognostications and recommendations are made on the basis of these reports, but it will be readily understood that exact measurements of probabilities are not always possible.

The Forest Insect Control Board

The latest development in the organization of forest entomology is the establishment of the Forest Insect Control Board. On Sept. 14, 1945, this Board was officially set up by Order in Council P.C. 6018, under the Department of Reconstruction. Its object and functions are aptly expressed in the following extracts from the text of the Order:—

> (1) That, in line with the conservation and development of natural resources, it is proposed to establish a Forest Insect Control Board for the purposes herein noted.
> (2) That the losses through forest insects, particularly the current outbreak of the spruce budworm, represent a serious threat to the future of Canadian forest industries and that the seriousness of the situation warrants immediate special action.
> (3) That, while the primary responsibility for the actual institution of control measures has been normally left with the Provinces, the epidemic has now reached the stage where national action is required.
> (4) That the most direct course of action is to establish one body charged with the co-ordination of all efforts, whether Dominion, Provincial or otherwise, in an endeavour to control forest insect outbreaks.
> (5) That, if established, it shall be the duty of the Board to take all possible steps, both separately and in co-operation with the Provinces and Forest Industry, to control forest insect outbreaks, particularly the spruce budworm.

According to the Order in Council, the Board is to be composed of representatives, one from each of the following: Department of Reconstruction and Supply, which representative will act as Chairman; Department of Agriculture; Department of Mines and Resources; Maritime Provinces, a representative to be nominated by joint agreement of the Minister of Lands and Mines of New Brunswick and the Minister of Lands and Forests of Nova Scotia; Province of Quebec, a representative to be nominated by the Minister of Lands and Forests; Province of Ontario, a representative to be nominated by the Minister of Lands and Forests; Province of British Columbia, a representative to be nominated by the Minister of Lands and Forests; Pulp and Paper Industry, a representative to be nominated by the President of the Canadian Pulp and Paper Association.

Subject to the approval of the Minister of Reconstruction, the Board shall have the power to enter into agreements with other Dominion Government Departments, provinces, municipalities, companies or other agencies or individuals for co-operative control measures.

The Minister of Reconstruction, under authority of Subsection 3 of Section 3 of the Department of Reconstruction Act, 1944, may, with the approval of the Governor in Council, appoint to the Board such temporary technical and other staff as in his judgment is required for the effective carrying out of the Board's duties and responsibilities and may obtain on loan the services of any officer of a Dominion Government Department required for these purposes.

Section 4.—Forest Depletion and Increment

Depletion.—The average annual rate of depletion of reserves of merchantable timber during the ten years 1935-44 was 3,227,000,000 cu. ft. Of this total 74 p.c. was felled for domestic and commercial use and 26 p.c. was destroyed by fire and pests. Of 2,380,000,000 cu. ft. utilized, 38 p.c. was used in sawlogs, 30 p.c. for fuel, 28 p.c. for pulpwood, and 4 p.c. in miscellaneous products. Between 75 and 80 p.c. of the total cut was of softwood species. Losses by fire averaged 347,000,000 cu. ft. annually, and insects and tree diseases destroyed about 500,000,000 cu. ft.

Forest Fires.—The area burned and damage caused by forest fires in 1945 were considerably less than the average for the previous ten years. Losses in British Columbia were, however, unusually heavy; nearly half of the area burned and more than half of the total damage for the whole of Canada occurred in that Province. Elsewhere the losses sustained were much below normal.

Summary statistics of fire losses are given in Tables 2 and 3, while fuller details by regions are given in the Annual Report of the Department of Mines and Resources for the fiscal year ended Mar. 31, 1946.

2.—Forest-Fire Losses in Canada, 1945, with Ten-Year Averages, 1935-44

Item	Average 1935-44	1945	Item	Average 1935-44	1945
Fires under 10 acres.......No.	–	3,681	**Estimated Values Destroyed—**		
Fires 10 acres or over..... "	–	1,080			
Total Fires...........No.	**5,533**	**4,761**	Merchantable timber.....$	2,603,603	1,018,679
Area Burned—			Young growth............$	891,904	399,144
Merchantable timber...acre	554,723	159,909			
Young growth.......... "	663,088	161,641	Cut-over lands...........$	313,096	78,103
Cut-over lands.......... "	370,611	129,361			
Non-forested lands...... "	852,434	290,620	Other property burned....$	502,835	779,777
Total Area Burned.. "	**2,440,856**	**741,531**	**Total Damage**..........$	**4,311,438**	**2,275,703**
Merchantable Timber Burned—			Actual cost of fire fighting..$	868,197	993,818
Saw timber......M ft. b.m.	720,842	686,200	**Total Damage and Cost**.................$	**5,179,635**	**3,269,521**
Small material.........cord	2,491,905	289,153			

3.—Forest Fires in Canada, by Causes, 1945, with Ten Year Averages, 1935-44

Cause	Averages 1935-44		1945	
	No.	p.c.	No.	p.c.
Camp-fires	977	18	710	15
Smokers	936	17	1,237	26
Settlers	841	15	364	8
Railways	315	6	723	15
Lightning	972	17	865	18
Industrial operations	150	3	173	4
Incendiary	330	6	117	3
Public works	50	1	14	–
Miscellaneous known	464	8	354	7
Unknown	498	9	204	4
Totals	**5,533**	**100**	**4,761**	**100**

Increment.—Practically all of the depletion or drain on the forest is concentrated on the 435,000 sq. miles of productive forest which is classed as accessible, and replacement of normal depletion by this area alone requires an average annual growth rate of about 12 cu. ft. per acre. Complete estimates of the rates at which the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions, and the complex character of the forests themselves, place great difficulties in the way of estimating growth. Numerous studies have been made by the Dominion Forest Service which indicate, beyond reasonable doubt, that over considerable tracts annual growth exceeds 25, 30 or even 40 cu. ft. per acre per annum; however, there are other areas classed as productive on which the growth is much less.

Natural reproduction of forest tree species in Canada is fortunately prolific except in a few localities. After an area has been cut over or burned, young growth usually appears within a short time. Thus, the re-establishment of some sort of forest growth is a less difficult problem than it is in many other countries. There is, however, no guarantee that the species reproduced will be of the kinds desired by industry. Most of the wood used in Canada is softwood and, in general, softwood reproduction is fairly good; but there are considerable areas in which a combination of overcutting and repeated fires have resulted, not in the permanent destruction of the forest, but in the replacement of valuable stands by new ones of inferior type.

There is no room for doubt that the introduction of better methods of forest management, including the provision of more adequate forest protection, can make the forests of Canada more productive than they have ever been. It is true that stocks of very large trees, whose growth required upwards of 300 years, are disappearing and will not be replaced; but, though the forest industries of the future must use smaller logs than did those of the past, good forest management can make possible a considerable expansion of those industries as and when market conditions warrant.

The potential capacity of many forest soils to produce more usable wood in a given period than they have ever done in the past is already being demonstrated on such areas as the Dominion Forest Experiment Station at Petawawa, Ont., and on some of the better-managed farm woodlots.

Section 5.—Forest Administration

Subsection 1.—Administration of Dominion and Provincial Timber-Lands

Although the forest resources are, generally speaking, under the control of the provinces, forests of the National Parks, Forest Experiment Stations and the Northwest Territories and Yukon are administered by the Dominion Government.

In Canada, the general policy of both the Dominion Government and the Provincial Governments has been to dispose of the timber by means of licences to cut, rather than to sell timber-land outright. Under this system, the State retains ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage (either in lump sums or in payments made as the timber is cut); ground-rents and fire-protection taxes are collected annually. Both ground-rent and Crown dues may be adjusted at the discretion of the Governments.

The Maritime Provinces did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island practically all the forest land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia 71 p.c. of the forest land is privately owned; nearly one-half of this is in holdings exceeding 1,000 acres. In New Brunswick nearly 50 p.c. is under private ownership. The percentages of privately owned forest land in the other provinces are as follows: Quebec, 7·2 p.c.; Ontario, 6·0 p.c.; Manitoba, 12·7 p.c.; Saskatchewan, 11·9 p.c.; Alberta, 7·7 p.c.; and British Columbia, 3·4 p.c.

4.—Forest Reserves in Canada, by Provinces, 1946

Note.—Areas of National Parks (which are also forest reserves) are not included in this table, but may be found on p. 38.

Province	Dominion Forest Experiment Stations	Provincial Forest Reserves	Total
	sq. miles	sq. miles	sq. miles
Prince Edward Island	Nil	Nil	-
Nova Scotia	“	“	-
New Brunswick	35·16	137·00	172·16
Quebec	7·25	5,371·00	5,378·25
Ontario	97·10	19,526·00	19,623·10
Manitoba	25·25[1]	3,799·09	3,799·09
Saskatchewan	Nil	14,070·68	14,070·68
Alberta	62·60	14,317·23	14,379·83
British Columbia	Nil	31,134·05	31,134·05
Northwest Territories	“	Nil	-
Totals	**202·11**	**88,355·05**	**88,557·16**

[1] Under National Park reservation and therefore not included in total.

Forest Lands under Dominon Control.—The forests under Dominion control are administered by the Department of Mines and Resources. The National Parks Bureau has charge of the National Parks, and the Bureau of Northwest Territories and Yukon Affairs administers the timber in those areas. The Indian Affairs Branch administers, in trust for the Indians, the timber within their reservations. The Dominion Forest Service has charge of the Forest Experiment Stations.

Forest Lands under Provincial Control.—With the exception of relatively small areas owned by the Dominion Government, the Crown lands and the timber on them are administered by the provinces in which they lie. As new regions are explored, their lands are examined and the agricultural land disposed of. Land suitable only for forest is set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis. Information regarding forest administration in the individual provinces is given at pp. 234-236 of the 1942 Year Book.

Royal Commissions on Forestry.—In 1944, a Royal Commission on Forestry was established by the Province of British Columbia with Mr. Justice (now Chief Justice) Gordon Sloan sitting as sole Commissioner. Over a period of two years the Commission held a series of hearings and received representations from the Government, the forest industries, and the public. In his report, the Commissioner presented a review of the whole forest situation in the Province; a number of the recommendations were implemented by legislation shortly after the report was presented. One recommendation which the Government considered unacceptable was that the administration of the forest resources of the Province should be placed in the hands of a more or less independent commission. The Premier of the Province stated that it was the view of his Government that administration should continue to lie with the Department of Lands and Forests.

In 1945, the Province of Saskatchewan appointed a Royal Commission, under the chairmanship of Frank Eliason, to conduct inquiries into forestry matters. Two interim reports have been published recommending more adequate fire protection and the curtailment of the annual cut on forest areas under provincial control to an amount roughly approximating one-twentieth of the estimated stand of merchantable spruce timber in each particular area. A new policy of timber disposal replaced the old practice of selling timber on a stumpage basis with a system of cutting and processing timber by contract. All timber for re-sale from Crown lands will remain the property of the people of the Province, and will be turned over at rail-head to the Saskatchewan Timber Board for marketing.

In 1946, the Province of Ontario appointed a Royal Commission, under the chairmanship of Major-General Howard Kennedy, C.B.E., M.C., to investigate all phases of Ontario's forest industries and to work out a comprehensive policy towards the economic development and perpetuation of the forest resources of the Province.

In the five other forest provinces, although formal public inquiry has not been considered necessary, forestry problems are receiving close attention from governments and from industry, and steps are being taken to improve and strengthen administrative and protective services.

Subsection 2.—Forest Protection

Fire Protection.—The Dominion Government administers the forests of the National Parks, Forest Experiment Stations and the Northwest Territories and Yukon, and is, therefore, responsible for fire-protection measures therein. Each of the Provincial Governments, except that of Prince Edward Island, maintains a fire-protection organization co-operating with owners and licensees for the protection of all timbered areas, the cost being distributed or covered by special taxes on timber-lands. In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons during dangerous periods. An interesting development in this connection in the Province of Quebec is the organization of a number of co-operative protective associations among lessees of timber-limits. These associations have their own staffs, which co-operate with those of the Board of Transport Commissioners and the Provincial Government. The latter contributes money grants, and also pays for the protection of vacant Crown lands lying within the area of the associations' activities.

In the matter of forest-fire protection along railway lines, the provincial services are assisted by the Dominion Railway Act administered by the Board of Transport Commissioners. This Act gives to that body wide powers relating to fire protection along railway lines under its jurisdiction. Certain officers of the various forest authorities are appointed ex-officio officers of the Board of Transport Commissioners and co-operate with the fire-ranging staffs which the railway companies are required to employ under the Dominion Railway Act.

In certain districts in Canada, aircraft are used to good effect for the detection and suppression of forest fires. Where lakes are numerous, seaplanes or flying boats can be used for detection, and for the transportation of fire-fighters and their equipment to fires in remote areas. Radio-equipped aircraft are employed on forest fire-protection operations; these enable the observer to report the location of a fire as soon as it has been detected.

In the more settled areas with better transportation facilities, fire detection is carried out by means of lookout towers fitted with telephone or radio for reporting fires. Field staff and equipment are maintained at strategic points ready to deal with fires when they are reported. These staffs, when not engaged on fire control duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other necessary improvements.

Portable gasoline pumps, which usually weigh between 60 and 100 pounds each, and linen hose are important equipment. These pumps can be carried to a fire by canoe, motor-boat, automobile, aircraft, pack-saddle or back-pack and can provide hose pressures up to 200 lb. per square inch, depending upon the elevation above and distance from the water supply. Hose lines over a mile in length are frequently used. Small hand-pumps supplied by 5-gallon portable containers are also used effectively in many cases.

In addition to these improved measures, the enactment of legislation has tended to reduce the fire menace. The establishment of close seasons for brush-burning, and seasons during which permits are required for setting out fires and for travel in the forests during dangerous dry periods, have been of enormous value as preventive measures.

Another important advance in forest protection is the development by the Dominion Forest Service of methods for the daily measurement of the actual degree of forest-fire danger. In the forest types and regions in which the necessary research has been completed the forest authorities are able, not only to gauge the trend of increasing fire danger at any given time but, by the aid of weather forecasts, to anticipate the trend one or two days in advance and so regulate their activities to meet hazardous conditions as they develop.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, that Association has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a large circulation, by railway lecture cars and motor-trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of the Dominion. Special efforts are made through the schools by specially appointed junior forest wardens and other means, to educate the younger generation as to the value of forests, the devastation caused by fire and the means of preventing such destruction.

Forest Insect Control Board.—The composition, object and functions of the Forest Insect Control Board are dealt with in the special article at pp. 399-400.

Subsection 3.—Scientific Forestry

The great forestry problem is the management of Crown forests, first under provisional and later under more intensive working plans, so as to ensure a sustained yield. Forest research activities in this direction are now assuming great importance. The Dominion Forest Service operates five forest experiment stations with a total area of 227 sq. miles.* Here investigations of the underlying principles governing the growth of forests are made and practical methods of management are tested.

About 600 technically trained foresters are employed by the Dominion, by provincial forest services or by pulp, paper, and lumber companies. A number of foresters are actively engaged in commercial logging operations and, in addition to administrative work, these men carry on forest surveys either for the estimation of timber-stands and making of maps, or to determine natural growth and reproduction conditions and factors.

Through the use of air photographs taken by the Royal Canadian Air Force and base maps prepared by the mapping organizations of the Departments of Mines and Resources and National Defence, the Dominion Forest Service has taken a leading part in the development of methods for the interpretation of air photographs for forestry purposes. Most of the provincial forest services and many timber-owning companies are also making extensive use of aerial photographs. It is now possible not only to map the areas occupied by the different forest types but to estimate the volume of standing timber with an accuracy that compares favourably with ground surveys. Aerial photographs drawn to scales suitable for mapping purposes and covering about 1,000,000 sq. miles are now available in the National Air Photographic Library of the Department of Mines and Resources, and about 123,000 sq. miles of forest have been mapped and classified from the photographs. Still greater use of air photographs for forestry purposes is expected in future.

Research Work in Forestry.—The work at present being conducted on the control of forest insects is dealt with at pp. 395-400. In a special article on Scientific and Industrial Research in Canada, which appears at pp. 979-1012 of the 1940 Year Book, a comprehensive review is given of all phases of scientific research work being undertaken by the various Government Departments.

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* See Table 4, p. 402.

Forestry and FAO.—In October, 1944, the Food and Agriculture Organization of the United Nations was formally established and held its first conference at Quebec. The functions of the Organization generally, and as they concern agriculture particularly, are given at pp. 329-330. The Conference decided that the Organization should include a Division on Forestry and Forest Products, because the promotion of human welfare requires provision of shelter and warmth as well as sufficient and suitable food. Furthermore, it was recognized that forestry and agriculture are alternative forms of land use and, in many cases, the two activities are complementary. The Canadian delegation included five representatives of forestry, headed by the Dominion Forester.

The FAO international forestry office is assembling information respecting forest resources, forestry conditions and practices, and forest industries on a world-wide basis. It assists in the compilation of up-to-date statistics, and will be required to advise the appropriate international authorities respecting measures that might be adopted to correct shortages of forest products in different parts of the world. Technical missions are being organized to give advice on forest management problems.

Canada has undertaken to co-operate in the forestry work of FAO, and should benefit by the new services to be provided. In particular, improvements in the completeness and accuracy of information respecting world supplies and demands for forest products should help to stabilize the export markets that are so vital to Canada's forest industries.

Section 6.—Forest Utilization

Subsection 1.—Woods Operations

In connection with operations in the woods, it should be borne in mind that the forests not only provide the raw material for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but that they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products, which are finished in the woods ready for use or exportation. There are also a number of minor forest products, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark, that go to swell the total.

It has been estimated that operations in the woods in Canada in 1944 gave employment during the logging season amounting to 35,551,000 man days, and distributed over $195,000,000 in wages and salaries.

5.—Values of Woods Operations, by Products, 1939-44

Product	1939	1940	1941	1942	1943	1944
	$	$	$	$	$	$
Logs and bolts	55,685,197	71,817,471	86,514,625	92,897,611	99,852,479	115,788,036
Pulpwood	58,302,668	74,347,132	88,193,045	103,619,151	110,844,790	124,363,926
Firewood	33,058,240	33,297,756	26,662,296	27,264,486	45,152,897	44,332,748
Hewn railway ties	2,048,186	1,788,001	1,547,780	878,830	1,138,663	1,289,165
Poles	2,940,361	2,691,107	2,467,336	2,663,603	2,032,681	5,217,255
Round mining timber	1,461,507	5,707,677	2,458,435	2,169,268	3,418,857	3,509,015
Fence posts	1,111,883	999,934	964,568	1,291,393	1,902,546	2,216,585
Wood for distillation	289,230	518,204	588,747	745,408	774,344	887,260
Fence rails	267,437	270,320	262,521	341,607	464,365	513,135
Miscellaneous products	2,582,689	3,130,273	3,503,736	2,500,534	3,033,661	3,453,698
Totals	**157,747,398**	**194,567,875**	**213,163,089**	**234,371,891**	**268,615,283**	**301,570,823**

6.—Wood Cut in Operations in the Woods, Equivalents in Merchantable Wood and Total Values, by Chief Products, 1944, with Comparative Totals, 1926-43

Note.—Details by chief products and by provinces for the years 1926-44 will be found in the "Annual Estimate of Operations in the Woods, 1944", published by the Forestry Branch, Dominion Bureau of Statistics. A change in computing the converting factor was introduced in 1944-45 and is described at p. 265 of the 1946 Year Book.

Year and Product	Quantity Reported or Estimated	Converting[1] Factor	Equivalent Volume of Merchantable Wood	Total Value
			M. cu. ft.	$
Totals, 1926	–	–	**2,264,394**	–
Totals, 1927	–	–	**2,285,605**	–
Totals, 1928	–	–	**2,391,119**	–
Totals, 1929	–	–	**2,477,584**	–
Totals, 1930	–	–	**2,477,787**	–
Totals, 1931	–	–	**1,838,138**	**141,123,930**
Totals, 1932	–	–	**1,505,023**	**92,106,252**
Totals, 1933	–	–	**1,615,864**	**93,773,142**
Totals, 1934	–	–	**1,829,886**	**105,539,732**
Totals, 1935	–	–	**1,933,450**	**115,461,779**
Totals, 1936	–	–	**2,139,400**	**134,804,228**
Totals, 1937	–	–	**2,378,374**	**163,249,887**
Totals, 1938	–	–	**2,136,729**	**148,265,857**
Totals, 1939	–	–	**2,258,583**	**157,747,398**
Totals, 1940	–	–	**2,676,814**	**194,567,875**
Totals, 1941	–	–	**2,683,731**	**213,163,089**
Totals, 1942	–	–	**2,608,605**	**234,371,891**
Totals, 1943	–	–	**2,475,906**	**268,615,283**
1944				
Logs and bolts M ft. b.m.	5,102,006	200[2]	971,393	115,788,036
Pulpwood cord	8,668,566	85	736,828	124,363,926
Firewood "	8,918,184	80	713,455	44,332,748
Hewn railway ties No.	1,280,608	5	6,403	1,289,165
Poles and piling "	960,003	15	14,400	5,217,255
Round mining timber cu. ft.	10,624,169	1	10,624	3,509,015
Fence posts No.	16,985,323	1·2	20,383	2,216,585
Wood for distillation cord	92,003	80	7,360	887,260
Fence rails No.	5,209,757	1	5,210	513,135
Miscellaneous products	–	–	21,990	3,453,698
Totals, 1944	–	–	**2,508,046**	**301,570,823**

[1] In estimating the annual drain on Canada's forest resources, certain converting factors have been used, each of which represents in cubic feet the quantity of merchantable wood used to produce one unit of the material in question. [2] 175 for British Columbia coastal region.

7.—Equivalent Volumes of Solid Wood and Values of Products of Woods Operations, by Provinces, 1943 and 1944

Province	Equivalent Volumes of Solid Wood		Values of Products	
	1943	1944	1943	1944
	M. cu. ft.	M. cu. ft.	$	$
Prince Edward Island	11,595	12,047	793,380	938,829
Nova Scotia	100,385	98,263	10,207,903	11,179,112
New Brunswick	196,233	194,065	25,218,732	27,109,995
Quebec	930,137	965,724	104,692,371	123,936,131
Ontario	498,112	461,507	61,142,548	61,398,201
Manitoba	68,260	66,815	4,711,334	5,035,177
Saskatchewan	95,654	104,471	4,788,705	6,092,958
Alberta	99,436	101,302	5,368,392	5,974,375
British Columbia	476,094	503,852	51,691,918	59,906,045
Totals	**2,475,906**	**2,508,046**	**268,615,283**	**301,570,823**

Subsection 2.—The Pulp and Paper Industry

The rapid development of this industry in Canada is traced briefly at p. 265 of the 1940 Year Book. Summary statistics for the combined pulp and paper industries are given at pp. 412-414 of this volume.

There are three classes of mills in the industry. These, in 1945, numbered 29 mills making pulp only, 48 combined pulp and paper mills and 32 mills making paper only.

The industry in Canada includes three forms of industrial activity, the operations in the woods with pulpwood as a product, the manufacture of pulp and the manufacture of paper. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and some lumber manufacturers divert a proportion of their spruce and balsam logs to pulp-mills. Less than one-fifth of the pulpwood cut in Canada is exported in the raw or unmanufactured form and a large proportion of such exports is cut from private lands.

8.—Production, Consumption, Exports and Imports of Pulpwood, 1931-45

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Apparent Total Production of Pulpwood in Canada			Canadian Pulpwood Used in Canadian Pulp-Mills		Canadian Pulpwood Exported Unmanufactured		Imported Pulpwood Used in Canada	
	Quantity[1]	Total Value	Average Value per Cord	Quantity[1]	P.C. of Total Production	Quantity[1]	P.C. of Total Production	Quantity[1]	P.C. of Total Production
	cords	$	$	cords		cords		cords	
1931....	5,199,914	51,973,243	10·00	4,076,584	78·4	1,123,330	21·6	71,695	1·7
1932....	4,222,224	36,750,910	8·70	3,602,100	85·3	620,124	14·7	45,654	1·1
1933....	4,746,383	33,213,973	7·00	4,027,827	84·9	718,556	15·1	17,049	0·4
1934....	5,773,970	38,302,807	6·63	4,752,685	82·3	1,021,285	17·7	13,919	0·2
1935.. .	6,095,016	41,195,871	6·76	4,985,143	81·8	1,109,873	18·2	19,940	0·3
1936....	7,002,057	48,680,200	6·95	5,766,303	82·3	1,235,754	17·6	9,591	0·1
1937....	8,298,165	63,057,205	7·60	6,593,134	79·5	1,705,031	20·5	20,505	0·2
1938....	6,438,344	53,761,999	8·35	4,686,085	72·8	1,752,259	27·2	33,668	0·5
1939....	6,899,986	58,302,668	8·45	5,360,546	77·7	1,539,440	22·3	25,694	0·4
1940....	8,499,922	74,347,132	8·75	6,948,493	81·7	1,551,429	18·3	47,626	0·6
1941....	9,544,699	88,193,045	9·24	7,688,307	80·6	1,856,392	19·4	81	[2]
1942....	9,653,574	103,619,151	10·73	7,665,724	79·4	1,987,850	20·6	1,714	[2]
1943....	8,801,368	110,844,790	12·59	7,260,776	82·5	1,540,592	17·5	2,379	[2]
1944....	8,668,566	124,363,926	14·35	7,169,430	82·7	1,499,136	17·3	8,209	[2]
1945....	9,145,673	146,172,701	15·98	7,474,375	81·7	1,671,298	18·3	4,133	[2]

[1] All quantities are given in terms of rough or unpeeled wood. [2] Less than one-tenth of one per cent.

The manufacture of pulp is the second stage in this industry. This is carried on by mills producing pulp alone and also by paper manufacturers operating pulp-mills in conjunction with paper-mills to provide their own raw material. Such mills usually manufacture a surplus of pulp for sale in Canada or for export. Spruce, supplemented by balsam fir in the east and by hemlock in the west, is the most suitable species of wood for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulpmill, but in Canada there are a number of 'cutting-up' and 'rossing' mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for exportation. Pulpwood is measured by the cord (4′ by 4′ by 8′ of piled material). One cord of rough pulpwood contains approximately 85 cu. ft. of solid wood, and one cord of peeled pulpwood 95 cu. ft.

Pulp Production.—Growth of pulp production was steady up to 1920, when 1,960,102 tons of pulp were produced. With the exception of 1921 and 1924, each year up to 1929 showed consistent growth in the annual production, 1929 reaching a total of 4,021,229 tons. Figures from 1931 are given in Table **9**.

9.—Pulp Production, Mechanical and Chemical, 1931-45

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Mechanical Pulp[1]		Chemical Fibre[1]		Total Production	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	$	tons	$	tons	$
1931	2,016,480	37,096,768	1,086,735	46,998,988	3,167,960[2]	84,780,809[2]
1932	1,696,021	28,018,451	913,438	35,987,294	2,663,248[2]	64,412,453[2]
1933	1,859,049	25,332,444	1,120,513	38,781,630	2,979,562	64,114,074
1934	2,394,765	30,875,323	1,241,570	44,851,635	3,636,335	75,726,958
1935	2,563,711	32,323,820	1,304,630	47,398,219	3,868,341	79,722,039
1936	2,984,282	38,674,492	1,501,163	53,662,461	4,485,445	92,336,953
1937	3,384,744	46,663,759	1,756,760	70,065,469	5,141,504	116,729,228
1938	2,520,738	39,707,479	1,147,051	48,189,669	3,667,789	87,897,148
1939	2,796,093	43,530,367	1,370,208	53,601,450	4,166,301	97,131,817
1940	3,368,209	56,017,547	1,922,553	92,987,720	5,290,762	149,005,267
1941	3,550,285	61,749,788	2,170,562	113,689,763	5,720,847	175,439,551
1942	3,308,118	65,208,919	2,298,343	126,936,143	5,606,461	192,145,062
1943	3,033,751	63,721,703	2,239,079	130,797,449	5,272,830	194,519,152
1944	3,113,142	72,097,231	2,157,995	138,944,181	5,271,137	211,041,412
1945	3,393,426	86,990,626	2,207,388	144,882,496	5,600,814	231,873,122

[1] Includes screenings. [2] Includes unspecified pulp.

During 1945, 77 establishments turned out 5,600,814 tons of pulp valued at $231,873,122, as compared with 5,271,137 tons of pulp, valued at $211,041,412 in 1944. Of the 1945 total for pulp, 3,956,182 tons, valued at $116,404,915 were made in combined pulp and paper mills for their own use in manufacturing paper. The remainder was made for sale in Canada or for export. As in the case of pulpwood, a part of the product at this stage of the industry provides raw material for the later stages, while the remainder has a definite market value as pulp.

Over 59 p.c. of the production in 1945 was groundwood pulp and over 18 p.c. unbleached sulphite fibre, these two being the principal components of newsprint paper. Bleached sulphite, bleached and unbleached sulphate, soda fibre and groundwood and chemical screenings made up the remainder. A considerable market has developed for screenings in connection with the manufacture of rigid insulating boards.

The manufacture of the 5,600,814 tons of pulp produced in 1945 entailed the use of 7,478,508 cords of rough pulpwood valued at $122,347,847, and the total value of materials used in the manufacture of pulp was $140,668,147.

10.—Production of Wood-Pulp, by Chief Producing Provinces, 1931-45

Note.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Quebec		Ontario		Canada[1]	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	$	tons	$	tons	$
1931	1,513,658	41,884,387	858,100	22,944,933	3,167,960	84,780,809
1932	1,240,442	31,124,954	786,405	18,735,105	2,663,248	64,412,453
1933	1,360,704	29,860,706	867,417	18,644,259	2,979,562	64,114,074
1934	1,813,096	36,837,402	999,935	21,000,769	3,636,335	75,726,958
1935	1,916,382	38,235,076	1,087,742	22,866,369	3,868,341	79,722,039
1936	2,236,376	44,071,292	1,257,060	27,005,484	4,485,445	92,336,953
1937	2,551,546	55,277,014	1,466,555	33,964,784	5,141,504	116,729,228
1938	1,858,971	44,220,224	1,057,984	25,821,023	3,667,789	87,897,148
1939	2,119,183	49,026,966	1,158,576	27,631,051	4,166,301	97,131,817
1940	2,794,384	76,996,100	1,369,389	38,235,733	5,290,762	149,005,267
1941	2,971,386	89,103,399	1,507,324	46,908,967	5,720,847	175,439,551
1942	2,896,440	97,632,408	1,518,967	51,936,704	5,606,461	192,145,062
1943	2,617,403	94,054,176	1,490,966	54,818,046	5,272,830	194,519,152
1944	2,767,081	105,042,991	1,316,365	54,934,993	5,271,137	211,041,412
1945	2,887,176	114,197,036	1,468,682	62,596,260	5,600,814	231,873,122

[1] Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia.

Pulp Exports.—Total exports of wood-pulp from Canada in the years 1936-45 are given in Table **11**. A table at p. 201 of the 1941 Year Book gives the exports of wood-pulp from the principal producing countries for 1913, 1938 and 1939. The latter figures are incomplete, owing to exigencies of war, and consequently the table has not been continued.

11.—Exports of Wood-Pulp, 1936-45

Year	Quantity	Value	Year	Quantity	Value
	tons	$		tons	$
1936	754,496	31,246,695	1941	1,411,724	85,897,736
1937	870,716	41,815,731	1942	1,510,746	95,266,873
1938	554,037	27,730,738	1943	1,556,457	100,012,775
1939	705,515	31,000,602	1944	1,408,081	101,563,024
1940	1,068,517	60,930,149	1945	1,434,527	106,054,911

Paper Production.—During 1945, 80 establishments produced 4,359,576 tons of paper and paper board with a total value of $282,837,614, as compared with 4,044,376 tons, valued at $255,545,841 produced in 77 establishments in 1944. In addition to newsprint, Canadian mills have a highly developed production of fine paper, wrapping paper, tissues, paper board and other cellulose products: in fine paper Canada produces close to 600 types. In 1945, newsprint paper made up 76·2 p.c. of the annual paper production in Canada; the newsprint production increased in volume by 9·3 p.c. and in total value by 14·1 p.c. as compared with 1944. The remainder of the paper production was divided as follows: 13·7 p.c. paper boards, 3·7 p.c. wrapping paper, 3·7 p.c. book and writing paper, and about 2·7 p.c. tissue and miscellaneous papers.

12.—Paper Production, by Type, 1931-45

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Newsprint Paper		Book and Writing Paper		Wrapping Paper	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	$	tons	$	tons	$
1931	2,227,052	111,419,637	59,580	10,154,171	77,194	7,479,993
1932	1,919,205	85,539,852	56,781	8,687,895	69,018	6,289,293
1933	2,021,965	66,959,501	60,683	8,927,408	67,780	6,441,695
1934	2,604,973	86,811,460	64,991	9,681,536	79,779	7,740,823
1935	2,765,444	88,436,465	70,350	10,440,789	82,517	7,956,783
1936	3,225,386	105,214,533	74,940	10,866,346	95,916	8,761,356
1937	3,673,886	126,424,303	84,168	12,620,507	108,734	10,237,823
1938	2,668,913	107,051,202	73,834	11,098,901	90,879	9,069,298
1939	2,926,597	120,858,583	90,135	12,773,781	109,907	10,712,394
1940	3,503,801	158,447,311	102,696	15,518,667	139,716	14,457,299
1941	3,519,733	158,925,310	117,444	18,476,397	162,581	16,744,806
1942	3,257,180	147,074,109	121,419	19,181,665	165,991	17,221,769
1943	3,046,442	152,962,868	122,174	19,047,039	145,545	15,614,453
1944	3,039,783	165,655,165	155,498	23,700,310	156,721	16,699,663
1945	3,324,033	189,023,736	162,198	24,468,409	162,175	17,558,552

Year	Paper Boards		Tissue and Miscellaneous Paper		Totals, Paper	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	$	tons	$	tons	$
1931	202,854	10,225,732	44,545	4,350,356	2,611,225	143,629,889
1932	209,938	9,621,041	35,825	3,735,042	2,290,767	113,873,123
1933	232,190	10,598,439	36,802	3,762,832	2,419,420	96,689,875
1934	280,724	13,351,475	39,049	3,306,931	3,069,516	120,892,225
1935	314,849	15,051,893	47,736	3,866,720	3,280,896	125,752,650
1936	363,778	17,531,451	46,690	3,980,980	3,806,710	146,354,666
1937	422,710	21,719,730	55,863	4,883,060	4,345,361	175,885,423
1938	356,891	19,288,172	58,841	5,142,492	3,249,358	151,650,065
1939	413,687	21,359,828	60,176	5,071,476	3,600,502	170,776,062
1940	500,094	31,078,759	73,107	6,334,773	4,319,414	225,836,809
1941	649,840	40,214,658	75,178	7,089,121	4,524,776	241,450,292
1942	609,175	38,641,867	78,002	8,150,102	4,231,767	230,269,512
1943	568,101	37,528,257	84,082	8,883,535	3,966,344	234,036,152
1944	588,348	39,091,667	104,026	10,399,036	4,044,376	255,545,841
1945	595,131	40,100,872	116,039	11,686,045	4,359,576	282,837,614

Quebec produced 52·6 p.c. of the total quantity in 1945, Ontario 29·1 p.c., British Columbia 7·7 p.c. and Nova Scotia, New Brunswick and Manitoba the remaining 10·6 p.c.

13.—Paper Production, by Provinces, 1944 and 1945

Province	1944		1945	
	Quantity	Value	Quantity	Value
	tons	$	tons	$
Quebec	2,152,956	134,617,241	2,292,442	148,180,691
Ontario	1,152,385	77,239,367	1,267,796	86,395,223
British Columbia	317,039	19,088,145	334,502	20,353,984
Nova Scotia, New Brunswick and Manitoba	421,996	24,601,088	464,836	27,907,716
Totals	**4,044,376**	**255,545,841**	**4,359,576**	**282,837,614**

World Production of Newsprint.—Since the very early years of the Second World War, figures of world production of newsprint have not been available. The latest official information given in the Year Book appears at p. 203 of the 1941 edition where production is given by leading countries for the years 1938 and 1939, as well as the average production over the period 1928-39.

Although it is not possible to continue this series of official figures, a useful estimate of world newsprint production is provided by the Chairman of the Rationing Committee of British Newsprint Supply in collaboration with the British Ministry of Supply. This estimate placed the production of countries outside North America at 1,583,000 short tons for the year 1946, which was 2,250,000 short tons less than the average production of these same countries for 1937-38; on this basis the world production for 1946 would be 6,803,000 short tons, which explains the acute situation that is now being experienced as regards newsprint. Every mill in Canada is working to capacity and yet the world situation is far from being relieved. Until the European mills are rehabilitated and the backlog of demand has been met, a sellers market in newsprint will continue to prevail. A comparison of United States and Canadian production with world production is shown in the chart on p. 413. As official data are made available, the pre-war series of newsprint production by countries will be continued.

Exports of Newsprint Paper.—Total exports of newsprint paper from Canada in the years 1936-45 are given in Table 14.

14.—Exports of Newsprint Paper, 1936-45

Year	Quantity	Value	Year	Quantity	Value
	tons	$		tons	$
1936	2,993,089	103,639,634	1941	3,262,012	154,356,543
1937	3,455,240	126,466,412	1942	3,005,291	141,065,618
1938	2,424,655	104,615,042	1943	2,810,288	144,707,065
1939	2,658,723	115,687,288	1944	2,805,776	157,190,834
1940	3,242,789	151,360,196	1945	3,058,946	179,450,771

Since 1913 Canada has led the world in the exportation of newsprint. In 1938 the quantity of newsprint exported by the 11 principal newsprint-producing countries was 3,806,737 short tons, of which Canada contributed 63·7 p.c. World comparisons for later years are not available.

Statistics of the Combined Pulp and Paper Industries.*—The manufacture of pulp, the manufacture of paper and the manufacture of products made of paper may, under certain conditions, be treated as three industries, for they are frequently carried on in separate plants by entirely independent companies. The manufacture of basic stock and the converting of this paper into towels, stationery and other highly processed paper products are often combined in one plant. This

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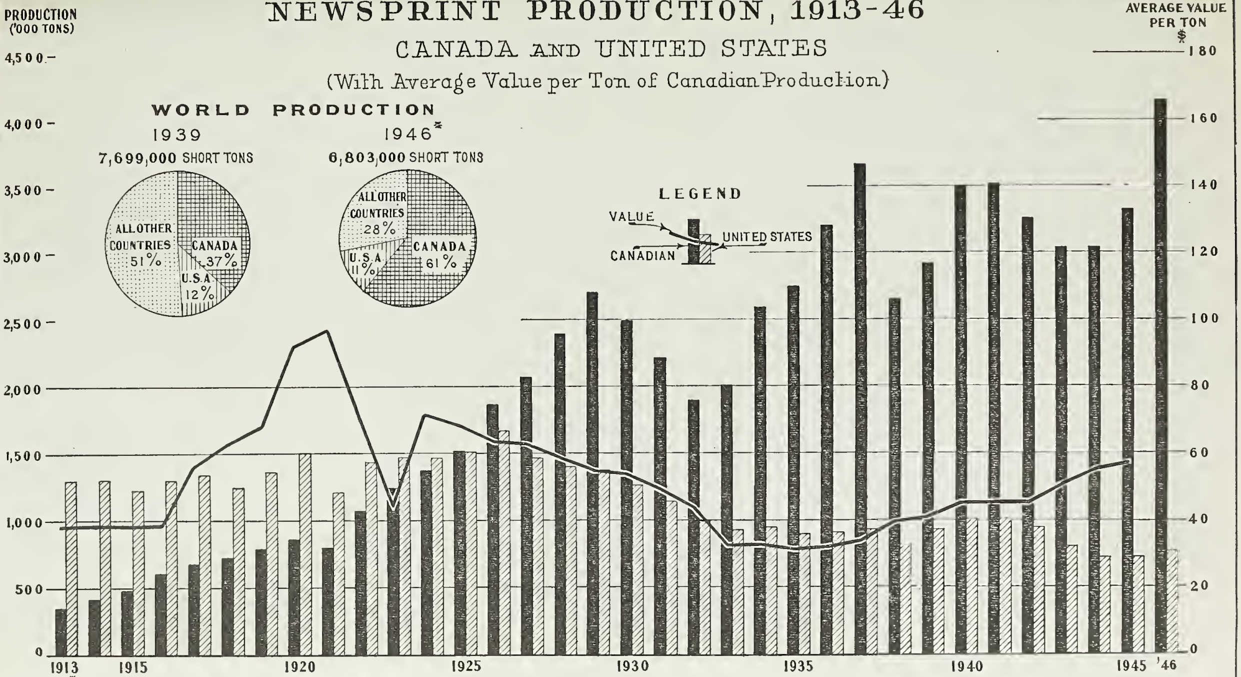
* See Chapter XVIII and the Index for further particulars regarding the pulp and paper and paper-converting industries.

NEWSPRINT PRODUCTION, 1913-46

CANADA AND UNITED STATES

(With Average Value per Ton of Canadian Production)



*Percentage for "All Other Countries" estimated.
Canada and U.S.A. Production for 1946 estimated on the basis of Newsprint Association of Canada.

further converting of paper within the pulp and paper industry itself represents only a small part of Canada's production of converted paper and boards, the bulk of which is still made in special converting mills classified in other industrial groups.

The presence of these different combinations in one mill makes it difficult to separate many of the statistics relating to the manufacture of pulp, basic paper and converted paper products. All converting operations carried on in paper mills in this industry are now attributed to the particular industrial group of converting plants to which they properly belong. The figures for 1937 and subsequent years, therefore, exclude all information pertaining to paper converting, which tends to lower perceptibly all the principal statistics of the pulp and paper industry and to render these figures not strictly comparable with those of previous years. Including manufacturing operations as far as the basic paper-making stage, there were altogether 109 mills in operation in 1945. The employees numbered 39,996 and their salaries and wages amounted to $80,462,644. If the pulp made for their own use in combined pulp and paper mills is disregarded, the total of materials and supplies used in the industry as a whole can be considered as amounting to $179,369,499 in 1945, $157,995,141 in 1944 and $143,956,462 in 1943; the gross value of production as $398,804,515 in 1945, $369,846,086 in 1944 and $344,411,614 in 1943; and net value of production, $180,401,885 in 1945, $174,492,103 in 1944 and $164,244,088 in 1943.

The pulp and paper industry is one of the leading single manufacturing industries in Canada. It was first in gross value of production from 1925 to 1934, but was replaced in 1935 by non-ferrous smelting and refining; it was first for many years in capital invested, in net value of production and in wages and salaries paid. During the war years, because of the extraordinary demands for munitions, vehicles and certain food products, such industries as non-ferrous metal smelting and refining, miscellaneous chemical products, slaughtering and meat packing, shipbuilding and repairs, iron and steel products and automobiles advanced temporarily to higher positions. This situation was quite abnormal, however, and the pulp and paper industry is resuming its former place as the leading peacetime industry in Canada. Only the manufacturing stages of the industry are considered in these comparisons, no allowance being made for capital invested, men employed, wages paid or primary products sold in connection with the woods operations. These form an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. In world trade, generally speaking, pulp and paper are Canada's main commodities; usually greater than wheat and far greater than nickel. Newsprint alone, over a considerable period, has brought Canada more export dollars than wheat, nickel or any other single commodity*. The United States market absorbs, annually, practically all pulpwood exports, over 75 p.c. of the pulp and the paper shipments of Canada. About one-half of the paper consumed in the United States is either of Canadian manufacture or is made from wood or wood-pulp imported from Canada.

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* For reasons given in Section 1, Part II of Chapter XXIII, gold is excluded from Canadian trade statistics.

Subsection 3.—The Lumber Industry

The manufacture of sawn lumber is the second most important industry in Canada depending on the forest for its raw materials.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for cutting-up and barking or rossing of pulpwood that reported in 1945 was 5,295, as compared with 5,506 in 1944. Employees numbered 44,040 and wages and salaries amounted to $54,017,500. The logs, bolts and other materials and supplies of the industry were valued at $126,006,754 and the gross value of production was $231,108,030. The net production in 1945 was $103,153,766.

Lumber production in Canada reached its maximum quantity in 1911 at almost 5,000,000,000 ft. b.m. The maximum value was reached in 1945. Average values were fairly uniform up to 1916, but increased rapidly from 1917 to 1920, only to decline gradually during the following years to the lowest level for the entire period, which was reached in 1932. With the exception of 1938, increases took place each year from 1933 to 1945.

15.—Quantities and Values of Lumber and All Sawmill Products, by Provinces, 1944 and 1945

Province or Territory	Lumber Production				Total Values[1]	
	Quantities		Values			
	1944	1945	1944	1945	1944	1945
	M ft. b.m.	M ft. b.m.	$	$	$	$
Prince Edward Island	7,502	8,885	265,443	344,731	330,234	407,865
Nova Scotia	229,610	250,795	8,622,553	10,075,523	9,658,323	11,395,270
New Brunswick	294,818	269,375	11,839,238	12,143,966	13,826,290	14,640,642
Quebec	1,010,361	1,029,313	41,603,134	45,790,905	50,099,695	56,109,217
Ontario	587,237	522,497	25,470,014	23,825,561	30,312,517	29,705,850
Manitoba	72,870	63,453	2,635,008	2,364,945	2,778,600	2,493,378
Saskatchewan	163,986	125,082	5,117,360	4,227,527	5,571,572	4,632,856
Alberta	162,913	189,412	4,685,231	5,897,668	5,564,400	6,729,682
British Columbia	1,982,478	2,055,082	70,080,622	76,354,956	98,381,844	104,972,850
Yukon	457	266	32,803	20,170	33,148	20,420
Totals	**4,512,232**	**4,514,160**	**170,351,406**	**181,045,952**	**216,556,623**	**231,108,030**

[1] Includes all other sawmill products.

16.—Quantities and Values of Lumber, Shingles and Lath Produced, 1931-45

NOTE.—Figures for the years 1908-28, inclusive, will be found at p. 300 of the 1931 Year Book and for 1929-30 at p. 262 of the 1943-44 edition.

Year	Lumber Cut		Shingles Cut		Lath Cut	
	Quantity	Value	Quantity	Value	Quantity	Value
	M ft. b.m.	$	M	$	M	$
1931	2,497,553	45,977,843	1,453,277	3,331,229	228,050	576,080
1932	1,809,884	26,881,924	1,802,008	3,556,823	208,321	474,889
1933	1,957,989	27,708,908	1,939,519	4,448,876	151,653	332,364
1934	2,578,411	40,509,600	2,405,071	4,422,578	177,988	412,844
1935	2,973,169	47,911,256	3,258,253	7,593,765	226,854	536,087
1936	3,412,151	61,965,540	3,019,030	6,754,788	286,323	874,231
1937	4,005,601	82,776,822	3,048,395	7,631,691	392,922	1,231,965
1938	3,768,351	72,633,418	2,761,978	6,894,654	239,467	656,320
1939	3,976,882	78,331,839	3,469,411	9,048,876	163,686	476,252
1940	4,628,952	105,988,216	4,420,240	9,600,497	216,465	688,167
1941	4,941,084	129,287,703	4,160,772	12,309,632	204,991	731,227
1942	4,935,145	149,854,527	3,720,482	13,191,084	181,994	737,874
1943	4,363,575	151,899,684	2,565,752	10,020,804	114,029	554,278
1944	4,512,232	170,351,406	2,697,724	11,411,359	110,639	645,010
1945	4,514,160	181,045,952	2,665,432	11,737,224	117,731	752,245

British Columbia came first in total production in 1945, contributing 45·5 p.c. of the total cut of lumber and 87·4 p.c. of the shingles. Quebec followed in second place, Ontario was third and New Brunswick fourth. In 1945, spruce was the most important kind of lumber sawn; it is produced in every province. Douglas fir, which is sawn almost entirely in British Columbia, came second, with hemlock, white pine, cedar, yellow birch and jack pine next in order of importance. Cedar was the most important shinglewood sawn. The conifers usually form between 90 and 95 p.c. of the total cut of all kinds of wood.

Lumber Exportation.—The hewn square-timber trade reached its maximum development in the 1860's; thereafter it declined gradually and has now almost entirely disappeared. Simultaneously with its decline came the increased exportation of deals and other sawn lumber, first to the United Kingdom and later to the United States. From the first, trade with the latter country has been confined largely to planks, boards and dimension stock. During the American Civil War, exports of forest products of all kinds to the United States for the first time exceeded those to the United Kingdom, but in late years this has become the rule. The total quantity of sawn lumber and square timber exported changed little from 1900 to 1929, averaging about 2,000,000,000 ft. b.m. per annum, but decreased considerably in the next three years, reaching its lowest level of 790,000,000 ft. b.m. in 1932. Since that time lumber exports have recovered.

17.—Exports of Planks, Boards and Square Timber, 1942-45

Country	1942		1943		1944		1945	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	M ft. b.m.	$	M ft. b.m.	$	M ft. b.m.	$	M ft. b.m.	$
British—								
United Kingdom.	647,392	22,634,538	902,539	35,881,525	851,537	38,569,538	878,663	39,217,064
British South Africa	24,241	1,280,341	32,300	1,442,617	41,904	2,433,424	60,168	3,780,602
Australia	12,420	594,280	45,045	2,118,795	55,968	2,194,349	67,524	2,733,695
British West Indies	9,761	456,598	8,475	483,264	20,708	1,291,110	15,805	1,043,874
Newfoundland	23,607	1,021,519	5,251	371,432	5,735	426,216	5,568	409,615
Fiji Islands	3,899	164,248	1,827	81,764	4,321	206,062	1,733	82,121
Other British countries	6,523	404,947	6,783	368,432	9,606	489,168	20,813	1,296,220
Totals, British	**727,843**	**26,556,471**	**1,002,220**	**40,747,829**	**989,779**	**45,609,867**	**1,050,274**	**48,563,191**
Foreign—								
United States	1,432,128	53,406,452	730,479	33,622,548	878,603	44,562,967	929,417	50,209,833
Iceland	9,419	360,339	6,043	269,211	8,915	509,253	6,548	439.269
Egypt	634	33,180	425	23,708	2,039	94,695	1,875	82,492
Other foreign countries	9,932	335,453	2,109	75,208	3,183	172,742	12,928	699,796
Totals, Foreign	**1,452,113**	**54,135,424**	**739,056**	**33,990,675**	**892,740**	**45,339,657**	**950,768**	**51,431,390**
Grand Totals	**2,179,956**	**80,691,895**	**1,741,276**	**74,738,504**	**1,882,519**	**90,949,524**	**2,001,042**	**99,994,581**

Subsection 4.—Manufactures of Wood and Paper

Sawmills and pulp and paper mills draw their raw material directly from the forest in the form of logs and pulpwood, and produce sawn lumber, other sawmill products and pulp and paper. There are also a number of important industries that use these products as raw material for further manufacture. Some of them produce commodities made almost entirely of wood, wood-pulp or paper, some manufacture articles in which wood is the most important component, and others produce articles in which wood is necessary but forms only a small proportion of the value. There are, in addition, a number of industries that use wood indirectly in the manufacture of articles that do not contain wood as a component part. The first class includes the manufacture of paper, sash, doors, other mill-work and planing-mill products; boxes, baskets, cooperage and other containers; canoes, boats and small vessels; kitchen, bakery and dairy woodenware; wooden pumps, piping, tanks and silos; spools, handles, dowels and turnery. The second class includes the manufacture of furniture, vehicles and vehicle supplies, coffins and caskets, etc., and the use of paper in printing and the manufacture of paper boxes, bags, stationery and paper goods. The third class, where wood has a secondary importance, includes the manufacture of agricultural implements, railway rolling-stock, musical instruments, brooms and brushes, etc. The fourth class can be said to include practically every form of industrial activity, as few, if any, of these are entirely independent of the use of wood, directly or indirectly.

A classification based on the chief component material in the products of each manufacturing establishment is now largely used in compiling manufacturing statistics and for external trade purposes. Under this system most of the forest industries fall in the wood and paper group. In 1944, this group, comprising 10,452 establishments, gave employment to 189,674 persons and paid out $284,436,559 in salaries and wages. The gross value of its products was $1,093,725,822 and the net value, $550,826,986.

Exports of Wood and Paper Products.—The forests of Canada contribute substantially to the export-trade values. During the calendar year 1945, exports of wood and paper products amounted to $488,040,542 and made up 15·2 p.c. of the total value of Canadian exports for the period, amounting to $3,218,330,353. Domestic exports of wood and paper products were exceeded by those of agricultural (vegetable and animal) products, which made up 37·8 p.c. of the total, and by mineral products with 30·1 p.c. Wood and paper products are prominent among the individual items of export. Even more impressive is the contribution made by products of the forest and forest industries toward Canada's excess of exports over imports. In 1945, this excess from trade in all commodities (excluding gold) was $1,681,649,146. In comparison, the gross total contribution from trade in "wood, wood products and paper" only, amounted to $438,300,000.

Section 7.—Post-War Timber Control

An outline of the controls applied to meet the dislocation in the lumber industry during the war years is given at pp. 277-280 of the 1946 Year Book. Since the end of the War, the domestic demand for lumber for all purposes including construction, railway maintenance and general industrial use, has been extraordinarily high, and export demand has also reached unprecedented heights because of the needs for reconstruction throughout the world. Preliminary estimates for 1946 indicate a production of 4,776,000,000 ft. b.m. of lumber in Canada and it is expected that in 1947 it will reach a record of 5,000,000,000 ft. b.m. Because of the differences in domestic ceiling prices and world prices, it is necessary to continue the rigid control of exports. The policy followed is a middle course between unrestricted exports resulting in demoralization of Canadian construction, and no exports resulting in the ruination of Canada's export trade, chaos in the industry and the necessity of increasing domestic prices, as well as placing Canada in the position of refusing to help in the reconstruction of shattered countries.

In 1946, Canada retained approximately 2,693,000,000 ft. b.m. of lumber for domestic use and exported 2,083,000,000 ft. b.m. or 43·6 p.c. of the total production. It was estimated that there should be enough lumber in Canada to provide for the building of 60,000 houses; this left 2,168,000,000 ft. b.m. for industrial and other building, mines, railways, packaging, and other industrial uses.

In retaining the price ceilings in Canada, it was necessary to make certain price concessions to encourage increased production. Such price increases were permitted on doors, window sash, window frames, shingles, and on certain other items where producers could show financial need. Although Canadian ceiling prices assisted the Canadian consumer, they created a great amount of pressure from exporters and manufacturers desirous of participating in the higher world markets. It has, therefore, been necessary to require manufacturers to obtain, from the Timber Control, approval on their Canadian shipments before credit is obtained to export.

The supply and distribution of fuel wood was of prime importance during the war years, since normally one-half of the households in Canada rely on wood for fuel and over 25 p.c. of the annual forest depletion is used for that purpose. Every effort was made to encourage production and subsidies were paid to enable dealers to contract for supplies and sell them within consumer price ceilings. These price ceilings were maintained during 1946 and subsidies were continued on wood for the 1946-47 season.

Pulpwood operations in Canada were brought under the direction of the Timber Control at the end of 1941. Consumption of pulpwood by domestic mills was substantially higher during the war years than in the pre-war period and shortages of labour made it necessary to draw heavily on accumulated inventories. As a result, the continued operation of many mills now depends on suitable weather conditions and the availability of adequate bush labour. Until inventories can be built up, some measure of control of exports of pulpwood appears to be inevitable.

In 1946, pulpwood prices were again raised, east of the Rockies, and certain changes were made in the set-up of the Orders in Council to prevent dealers and brokers being forced into a position where they were compelled to give away part of their legitimate service fees to the producer. At the same time, export prices, which in Quebec and the Maritimes had been controlled by United States OPA Order, were brought in line with the new Canadian prices and, during the year, OPA price orders were done away with by Washington.

During 1946, due to the building of new mills and the expansion and extension of mills already operating, domestic consumption of pulpwood increased by 17 p.c. over the year 1945. The over-all picture of labour in the pulpwood year 1946-47 shows a heavy increase in numbers and it is anticipated that, if weather conditions continue favourable, most companies will meet their programs.

During 1946 the export quota to the United States was maintained at 1,800,000 cords, rough basis, the same as in 1945.

CHAPTER XIV.—FUR RESOURCES AND FUR PRODUCTION

CONSPECTUS

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Section 1.—The Fur Trade

Historical Sketch.—A historical outline tracing the development of the fur industry is published at pp. 281–282 of the 1946 Year Book. See also list of Special Articles under Fur Trade at the front of this volume.

The Modern Industry.—During the present century the fur trade has changed greatly. With the advance of settlement, trapping has moved northward in all provinces but by far the most important development has been the establishment of fur farming independently or as an ancillary branch of specialized agriculture. This is dealt with in Section 2, pp. 420-422 however, and the purpose here is to trace the recent changes that have marked the trapping of fur-bearing animals in the wild state.

The conservation of fur-bearers, which has marked the policy of federal and provincial authorities to an increasing extent, has been made necessary by an increasing demand for furs coupled with decreasing supplies. The resulting substantial rise in prices also brought about a tendency to 'over-trapping', and it has been found necessary to control the 'take' by prohibition, close seasons and the enforcement of trapping regulations. However, in a country of such extent, where trappers, both White and Indian, are scattered over a vast wilderness, prohibition of capture of certain animals with the aim of conserving future catches is not always effective. Such furs become higher priced because of this scarcity and the temptation to violate protective measures is great.

One noteworthy reconstructive measure that appears to have had a very beneficial influence on the rehabilitation of certain fur-bearers, especially beaver and muskrat, is the organized development of marshlands where these animals are actively assisted to increase their numbers in their natural habitat.

All provinces to-day have their trapping regulations and licence individual trappers. Some provinces register trap lines. The Saskatchewan Government has recently inaugurated a system whereby districts are assigned to individual licensed trappers. The licensee in his own interests will see to it that poaching on his preserve is stopped.

The Dominion Bureau of Statistics began the annual collection of returns from dealers in raw furs in 1919 with the co-operation of the Provincial Governments which supply lists of licensed dealers.

The first year of the record showed that raw furs taken in the 1919–20 season had a value of $21,048,670; this figure, however, was abnormally high as compared with the average season. For instance, during the 1929-30 season the value was

$9,982,000 and ten years later it was $11,523,000. During the War years 1939-45, prices rose rapidly with the result that the 1944-45 value amounted to $21,390,000, ($31,001,456 less $8,611,456, the contribution of fur farms), almost the same as in 1919-20. Muskrat contributed the greatest part of this amount, about $6,300,000.

In spite of the growth of fur farming, wild life still produces the greater portion of Canadian furs. Over an area of about 1,550,000 square miles, which is about 45 p.c. of the total land area of Canada, wild life, though a subordinate resource, is relatively more productive than agriculture, and of the products of wild life, furs are the principal item and the principal support of the population in that area.

Wars have always been disruptive to the normal flow of trade and during each of the two wars of the present century the Canadian fur trade suffered severely from severance of contact with London, England, which was the world's leading fur-trading centre. Prior to the War of 1914–18 and during the inter-war period, Canada marketed her pelts mainly through London. Since that market was practically dormant during hostilities, Canada was obliged to develop other outlets in the United States and in the Latin American countries. To what extent these channels will grow or remain is not yet clear. In 1945, the United Kingdom took vigorous steps to revive and develop her world position in the fur trade and the degree to which the trade will revert to its former channels remains to be seen.

The first Canadian auction sale was held in Montreal, Que., in 1920 after the First World War and since then that city has been the leading Canadian fur mart. To-day auction sales are also held at Vancouver, B.C., Edmonton, Alta., Regina, Sask., and Winnipeg, Man., and at Regina the Saskatchewan Government maintains a Fur Marketing Service to assist the producers of that Province.

Section 2.—Fur Farming*

In the early days of the fur trade, it was the practice in Canada for trappers to keep foxes alive until the fur was prime, and from this custom has arisen the modern fur-farming industry. The earliest authentic record of raising foxes in captivity comes from Prince Edward Island, where about 65 years ago a number of foxes were raised on a farm near Tignish. After 1890, a period of rising prices for furs encouraged fox-farming and the industry grew rapidly. The beauty of the fur of the silver fox and the consequent high prices realized from the sale of the pelts, caused attention to be directed chiefly to this breed, which is a colour phase of the common red fox established through selective breeding carried on by the pioneer fox farmers. While experiments were being carried on in Prince Edward Island, attempts at raising foxes in captivity were also being made in other provinces; the records show that foxes were successfully bred in Quebec in 1898, in Ontario in 1905 and in Nova Scotia in 1906. Fur farming is now carried on in all provinces of the Dominion and the number of farms, until the outbreak of war in 1939, showed a steady increase. An experimental fox ranch is operated by the Dominion Government at Summerside, P.E.I., where problems of breeding, feeding, housing and general care are studied.

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* Revised in the Agricultural Branch, Dominion Bureau of Statistics.

Although the fox was the first fur-bearing animal to be raised in captivity, many other kinds are now being bred—mink, raccoon, skunk, marten, fisher and rabbit. Mink are the most numerous and the most valuable of such farm-raised animals. From 1920 to 1939 there was a rapid expansion of fur farming in Canada and during that period there was a marked change in the type of furs that were most acceptable to the market. Black fox was popular 25 years ago. A few years later the highest prices were being paid for quarter and half silvers and during recent years the full silver and new types have been setting the upper price limit. The development of new colour phases in foxes and mink has proven to be a new incentive to the fur-farming industry. New-type fox such as platinum, platinum-silver, pearl-platinum and white-marked are meeting a ready market as are the new-type mink including silver-sable, platinum, silver-blue, snow-white and a number of other colour phases.

In 1939, the Dominion Government introduced a system of fur-grading under the Department of Agriculture. One of the Department's main objectives in grading is to secure uniformity so that furs may be bought by grade without the necessity of buyers from foreign countries personally examining the pelts. Grading offers many benefits to the producer as well as to the trade in general: (1) it educates the rancher as to the proper value of his pelts, and creates an incentive to improve the quality of his product; (2) it furnishes much-needed guidance in the planning of future matings; (3) it raises the standard of quality of the entire crop of pelts; and (4) it raises the level of prices for the higher-quality pelts.

Statistics of Fur Farming.—The following tables give the numbers and values of the fur farms and animals, for recent years.

1.—Fur Farms, Land and Buildings, and Fur-Bearing Animals, by Provinces, 1942-44

Province or Territory	Fur Farms			Values of Land and Buildings			Values of Fur-Bearing Animals		
	1942	1943	1944	1942	1943	1944	1942	1943	1944
	No.	No.	No.	$	$	$	$	$	$
P. E. Island	1,034	840	619	701,383	708,711	673,496	586,638	879,326	825,268
Nova Scotia	543	474	406	187,312	185,451	210,690	208,105	325,061	324,151
New Brunswick	726	610	494	341,141	313,715	290,422	428,369	627,385	635,250
Quebec	2,341	2,129	2,071	1,361,087	1,368,939	1,471,621	1,658,501	2,375,384	2,685,027
Ontario	1,101	1,046	988	1,306,091	1,439,056	1,547,082	1,364,707	2,190,642	2,447,177
Manitoba	548	505	485	1,088,036	1,129,235	1,190,080	776,207	1,126,959	1,346,652
Saskatchewan	522	474	457	484,624	533,607	603,903	454,565	700,097	942,571
Alberta	716	643	637	1,228,101	1,222,966	1,355,258	1,010,986	1,404,140	1,841,522
British Columbia	298	247	239	451,555	437,691	498,317	263,422	411,669	501,296
Yukon	6	5	Nil	9,650	18,975	-	2,355	4,240	-
Totals	**7,835**	**6,973**	**6,396**	**7,158,980**	**7,358,346**	**7,840,869**	**6,753,855**	**10,044,903**	**11,548,914**

2.—Fur-Bearing Animals on Fur Farms, as at Dec. 31, 1941-44

Kind of Animal	1941		1942		1943		1944	
	No.	Value	No.	Value	No.	Value	No.	Value
		$		$		$		$
Badger	5	55	3	50	Nil	–	Nil	–
Chinchilla	292	212,150	205	178,000	244	50,000	263	100,700
Coyote	39	390	35	485	28	675	17	266
Fisher	145	11,745	101	9,225	124	13,405	115	13,860
Fitch	398	1,614	294	2,784	255	1,396	153	1,185
Fox, blue	1,462	111,431	1,445	72,789	1,985	190,577	2,357	251,875
Fox, cross	816	20,806	684	21,795	602	25,098	603	23,572
Fox, new-type	6,511	585,847	11,720	877,994	20,786	2,015,892	28,158	2,493,602
Fox, red	499	6,081	479	8,245	535	13,069	551	9,718
Fox, silver	91,543	3,762,922	83,429	3,483,868	74,514	4,233,722	71,121	3,707,483
Fox, white	18	1,975	14	1,400	3	275	Nil	–
Fox, other	Nil	–	Nil	–	Nil	–	20	1,835
Marten	305	21,255	317	23,170	298	24,988	291	28,312
Mink	153,447	3,173,323	104,686	2,059,612	119,266	3,465,492	144,166	4,907,501
Nutria	1,165	16,998	786	11,460	357	6,882	219	6,925
Otter	2	50	Nil	–	Nil	–	Nil	–
Raccoon	279	2,314	282	2,978	258	3,428	169	2,076
Skunk	2	15	Nil	–	2	4	2	4
Totals	**256,928**	**7,928,971**	**204,480**	**6,753,855**	**219,257**	**10,044,903**	**248,205**	**11,548,914**

The annual revenue of the fur farmer arises from two sources, the sale of animals and the sale of pelts. In the early years of the industry the value of animals sold from fur farms exceeded the value of pelts sold; in 1944 the latter figure was over seven times the former.

3.—Values of Fur-Bearing Animals and of Pelts Sold from Fur Farms, 1941-44

Kind of Animal	1941		1942		1943		1944	
	Animals	Pelts	Animals	Pelts	Animals	Pelts	Animals	Pelts
	$	$	$	$	$	$	$	$
Badger	Nil	22	Nil	Nil	Nil	Nil	Nil	Nil
Chinchilla	"	Nil	"	"	"	"	3,800	"
Coyote	15	455	25	832	75	2,138	100	360
Fisher	2,355	585	150	353	Nil	3,124	8,652	2,909
Fitch	278	707	155	1,053	158	1,736	240	1,159
Fox, blue	3,072	42,977	2,850	75,217	13,008	57,337	28,675	125,005
Fox, cross	1,253	30,835	842	35,561	1,330	39,128	1,170	29,565
Fox, new-type	148,041	76,114	146,490	288,947	310,870	770,142	316,753	1,091,036
Fox, red	377	5,338	387	9,626	695	15,391	564	8,953
Fox, silver	327,845	2,753,093	151,418	3,532,571	328,857	4,241,614	248,484	3,093,065
Fox, white	Nil	66	Nil	164	Nil	575	Nil	Nil
Fox, other	"	Nil	"	Nil	"	Nil	"	1,108
Marten	4,565	303	3,475	495	2,010	1,775	11,253	2,820
Mink	291,618	1,888,189	109,356	2,793,573	229,257	3,823,656	520,530	3,884,243
Nutria	3,215	241	1,525	263	915	652	925	272
Raccoon	216	564	223	448	168	1,394	93	369
Totals	**782,850**	**4,799,489**	**416,896**	**6,739,103**	**887,343**	**8,958,662**	**1,141,239**	**8,240,864**

Section 3.—Total Fur Production*

Early records of raw-fur production are confined to the decennial censuses, when account was taken of the numbers and values of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw-fur production, basing its statistics on information supplied by the licensed fur traders. This survey was continued for some years. More recently, annual statements, based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are now used in the preparation of the statistics issued annually by the Bureau. In Prince Edward Island, the statistics are based on returns supplied directly to the Bureau by fur traders who deal in furs produced in the Province.

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* Revised in the Agricultural Branch, Dominion Bureau of Statistics.

4.—Pelts of Fur-Bearing Animals Produced with Percentages Sold from Fur Farms, Years Ended June 30, 1922-45

Year	Pelts		Approximate P.C. of Value Sold from Fur Farms	Year	Pelts		Approximate P.C. of Value Sold from Fur Farms
	Number	Value			Number	Value	
		$				$	
1922	4,366,790	17,438,867	4	1934	6,076,197	12,349,328	30
1923	4,963,996	16,761,567	4	1935	4,926,413	12,843,341	31
1924	4,207,593	15,643,817	6	1936	4,596,713	15,464,883	40
1925	3,820,326	15,441,564	4	1937	6,237,640	17,526,365	40
1926	3,686,148	15,072,244	5	1938	4,745,927	13,196,354	43
1927	4,289,233	18,864,126	6	1939	6,492,222	14,286,937	40
1928	3,601,153	18,758,177	11	1940	9,620,695	16,668,348	31
1929	5,150,328	18,745,473	13	1941	7,257,337	21,123,161	26
1930	3,798,444	12,158,376	19	1942	19,561,024	24,859,869	19
1931	4,060,356	11,803,217	26	1943	7,418,971	28,505,033	24
1932	4,449,289	10,189,481	30	1944	6,324,240	33,147,392	28
1933	4,503,558	10,305,154	30	1945	6,994,686	31,001,456	31

Ontario is the leading province in respect to value of fur production. The relation that the value of each province and territory bore to the total for Canada in the year ended June 30, 1945, was: Ontario, 22·6; Quebec, 16·3; Manitoba, 15·6; Alberta, 12·5; British Columbia, 10·0; Saskatchewan, 7·5; Northwest Territories, 5·6; New Brunswick, 3·0; Prince Edward Island, 2·8; Yukon, 2·2; and Nova Scotia, 1·9 p.c.

5.—Pelts of Fur-Bearing Animals Produced, by Provinces, Years Ended June 30, 1944 and 1945

Province or Territory	Pelts		Values	
	1944	1945	1944	1945
	No.	No.	$	$
Prince Edward Island	24,706	26,945	890,362	875,785
Nova Scotia	101,913	100,353	764,863	593,551
New Brunswick	70,159	88,078	834,741	927,158
Quebec	519,155	534,783	6,167,605	5,059,995
Ontario	1,049,371	992,802	7,129,781	7,003,877
Manitoba	880,622	1,511,130	3,832,641	4,818,625
Saskatchewan	1,106,354	925,240	3,437,777	2,310,760
Alberta	1,513,951	1,772,381	4,686,311	3,884,998
British Columbia	682,371	696,751	2,736,991	3,113,780
Yukon	78,005	87,292	467,188	669,217
Northwest Territories	297,633	258,931	2,199,132	1,743,710
Canada	**6,324,240**	**6,994,686**	**33,147,392**	**31,001,456**

The total number of pelts taken from all fur-bearing animals in 1945 amounted to 6,994,686 as compared with 6,324,240 in 1944. The total value of pelts decreased to $31,001,456 in 1945 from $33,147,392 in 1944. Average prices for chinchilla pelts increased from $15·60 to $30·00, for mink pelts from $19·55 to $22·38, muskrat from $2·28 to $2·65, rabbit from $0·30 to $0·59, marten from $46·31 to $47·99 and white fox from $32·83 to $35·58. Most other kinds of pelts decreased in average value.

6.—Pelts of Fur-Bearing Animals Taken, by Kinds, Years Ended June 30, 1944 and 1945

Kind of Pelt	Pelts		Total Values		Average Values	
	1944	1945	1944	1945	1944	1945
	No.	No.	$	$	$	$
Badger	11,212	5,708	46,470	19,036	4·14	3·33
Bear, grizzly	9	8	180	40	20·00	5·00
Bear, white	95	95	2,375	2,540	25·00	26·74
Bear, unspecified	1,448	2,344	4,769	6,639	3·29	2·83
Beaver	130,779	129,036	4,841,221	4,687,963	37·02	36·33
Cat, domestic	62	78	31	39	0·50	0·50
Chinchilla	5	12	78	360	15·60	30·00
Coyote or prairie wolf[1]	59,176	45,197	950,341	297,644	16·06	6·59
Ermine (weasel)	801,544	657,111	1,742,714	1,386,140	2·17	2·11
Fisher	3,319	3,662	252,937	238,944	76·21	65·25
Fitch	374	499	1,020	1,226	2·73	2·46
Fox, blue	2,805	3,031	89,166	83,553	31·79	27·57
Fox, cross	41,702	24,904	784,779	388,868	18·82	15·61
Fox, red	192,523	129,114	2,676,897	1,018,854	13·90	7·89
Fox, silver	129,184	132,949	4,390,912	3,612,567	33·99	27·17
Fox, new-type	13,086	17,276	775,574	881,553	59·27	51·03
Fox, white	30,332	17,969	995,829	639,425	32·83	35·58
Fox, other	298	210	5,039	1,943	16·91	9·25
Lynx	10,197	12,329	530,874	534,911	52·06	43·39
Marten	19,565	20,014	905,975	960,563	46·31	47·99
Mink	365,759	356,633	7,151,809	7,980,343	19·55	22·38
Muskrat	2,038,868	2,377,629	4,654,641	6,299,411	2·28	2·65
Nutria	90	24	504	107	5·60	4·46
Otter	12,089	11,211	290,064	272,428	23·99	24·30
Rabbit	593,156	275,440	175,044	162,581	0·30	0·59
Raccoon	33,467	27,277	178,962	84,147	5·35	3·08
Skunk	219,106	127,580	682,715	219,662	3·12	1·72
Squirrel	1,601,182	2,610,603	817,813	1,133,155	0·51	0·43
Wild cat	2,214	2,200	36,454	35,035	16·47	15·93
Wolf[1]	10,181	3,920	157,550	42,405	15·47	10·82
Wolverine	413	623	4,655	9,374	11·27	15·05
Totals	**6,324,240**	**6,994,686**	**33,147,392**	**31,001,456**	-	-

[1] Coyote or prairie wolf pelts for Manitoba are included with wolf pelts in 1944.

CHAPTER XV.—THE FISHERIES

CONSPECTUS

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Section 1.—The Early Fisheries

Historical records show that European fishing vessels frequented the waters of Canada's Atlantic Coast 400 years and more ago, and the prolific grounds have been fished continuously ever since that time. When John Cabot reached the North American mainland at the close of the fifteenth century he found Basque fishing vessels off the coast. When Jacques Cartier sailed up the St. Lawrence in the earlier part of the sixteenth century he too found that fishermen from the Old World had been there before him. As a matter of fact, there is some evidence that before the time of Cabot and Cartier the fishing grounds of the continent had been frequented by fishermen from Europe. The industry to-day is an enterprise of great importance throughout the country—on the Pacific Coast and in the inland provinces, as well as in the Atlantic area. The Census of 1941 showed that 36,297 persons reported fishing as their principal occupation. Many others, of course, worked in the fisheries, though not in full-time employment.

More detailed reference to the history of the fisheries of the Atlantic Coast will be found in the 1934-35 Year Book, p. 348.

Section 2.—The Canadian Fishing Grounds

Canada's fishing grounds fall naturally into three main divisions, Atlantic, freshwater or inland, and Pacific, and are among the most extensive and prolific in the world. A detailed description of each, the fish obtained from it, and the methods of fishing, is given on pp. 222-225 of the 1932 Year Book.

Section 3.—Governments and the Fisheries

Subsection 1.—The Dominion Government*

While the right of fisheries regulation for all parts of Canada rests with the Federal Government (Fisheries Act, 22-23 Geo. V, c. 42), fisheries administration is carried out by different authorities in different areas. The tidal or sea fisheries are all administered by the Federal Department of Fisheries, except in Quebec where, by agreement between the Provincial and Federal Governments, all fisheries, both sea fisheries and those in freshwater areas, are under provincial administration. The Federal Department also administers the non-tidal fisheries of Nova Scotia as well as the fisheries of Yukon and the Northwest Territories. On the other hand, the non-tidal fisheries of New Brunswick and Prince Edward Island and those of Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, are administered by the respective provinces. In British Columbia, Prince Edward Island and New Brunswick, however, the Federal Department carries on some protective work in connection with non-tidal fisheries.

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*Revised by the Department of Fisheries, Ottawa.

Revenue received by the Federal Government from the fisheries in the year ended Mar. 31, 1946, was $1,109,484, as compared with $479,665 in the preceding year. Expenditures in connection with the fisheries in 1945-46 were $3,374,102 as compared with $2,213,203 in 1944-45. Included in the outlays in both years were expenditures in connection with the International Pacific Salmon Fisheries Commission and the International Fisheries Commission, or Pacific Halibut Commission, as well as the costs of departmental administration, etc. During much of the war period 1939–45, Federal outlays in connection with the fisheries included large amounts in special war expenditures, which represented, in the main, fish supplied to Allied Nations under various governmental agreements. In 1945-46, such special expenditures were considerably smaller than in some of the earlier years but, nevertheless, totalled $6,853,879.

Conservation.—Since the time of Confederation in 1867, intelligent conservation of the country's fisheries resources has been a prime objective of the Federal fisheries authorities. In general, this effort to maintain and increase fish abundance is achieved by such steps as the control of fishing seasons, the regulation of fishing operations including control of types of gear, the imposition of catch limitations where found desirable, the prevention of obstruction or pollution of fishing waters, and the prohibition of the capture of undersized fish.

In assisting in the maintenance and increase of fish stocks, the Department of Fisheries has carried on for many years a program of fish culture in various areas where fisheries administration is a Federal responsibility. In 1945, the Fish Culture Branch operated 13 hatcheries, 6 rearing stations, 6 salmon retaining ponds, and several egg-collecting stations, at a cost of $192,895. During the year, more than 30,100,000 trout and salmon fry and fingerlings, plus some older fish, were transferred from the fish cultural establishments to suitable selected waters.

For some years, the Department has been carrying on successfully a program for the development of 'farms' for the commercial rearing of oysters in Atlantic regions where oyster areas are under Federal jurisdiction—in Prince Edward Island where the program was begun, Nova Scotia and some parts of New Brunswick. Wartime conditions during 1939–45 slowed down development somewhat but very substantial progress has been made. Oyster farming takes place on grounds made available to lessees by the Department on prescribed conditions, and the methods of operation followed by the lessees are those advised by the Fisheries Research Board. In British Columbia the oyster areas are under provincial jurisdiction.

Direct Assistance to Fishermen.—With the co-operation of the Fisheries Research Board, the Department makes available to fishermen and fish producers instruction and advice as to the most efficient methods of fish handling and processing. Fisheries inspectors employed by the Department are qualified by courses of training to assist fishermen as regards the handling and processing methods. In appropriate districts instruction in particular methods of processing is given by special officers employed by the Department for this work. Instruction is given orally, by method or by operational demonstrations. In addition, information brought out by the Research Board through studies and experiments at its six permanent stations or research centres, is put freely at the disposal of the fishing industry. Under arrangements made by the Department, adult-education specialists from the University of St. Francis Xavier, Antigonish, N.S., the Social Economic Service, Ste. Anne-de-la-Pocatiere, Que., and the University of British Columbia, Vancouver, B.C., assist fishermen in studying their problems and in devising plans for meeting those problems through joint action. The cost of this special educational work is met by the Department.

A lecture-demonstration program is carried on in different parts of the country by the Department, through qualified home economists, in order to assist in increasing the demand for fishermen's products by widening public knowledge of the nutritive values of Canadian fish foods and best methods of preparing them for the table. The program has been in progress for some years.

During wartime, considerations relating to national defence made it necessary to discontinue the special broadcasts of weather reports for fishermen which had been made previously but this service has now been resumed, and extended, in appropriate areas. The reports and forecasts are prepared by the Dominion Meteorological Service. Broadcasts are made several times daily from stations of the Canadian Broadcasting Corporation which cover the fishing areas concerned, and are also available to other stations.

In order to assist in increasing fisheries production to meet special food demands of wartime, subsidies on the construction of fishing vessels of certain types were paid by the Department of Fisheries for several years. Under this plan, 20 vessels of the packer-seiner type were built on the Pacific Coast. A smaller number of draggers, approximately 15, were constructed on the Atlantic Coast where the subsidy is still operative.

Fishing Bounty.—A bounty, representing interest on the Halifax Award, is paid annually to fishermen and owners of fishing boats and vessels on the Atlantic Coast under prescribed conditions. The bounty was established under authority of legislation to assist in sea-fisheries development and construction of fishing vessels and boats (45 Vict., c. 18, 1882, and 54-55 Vict., c. 42, 1891).

1.—Government Bounty Paid to Fishermen, by Provinces, 1944 and 1945

Province	Bounties Paid		Amounts of Bounties Paid[1]	
	1944	1945	1944	1945
	No.	No.	$	$
Prince Edward Island	1,226	1,242	9,565	9,813
Nova Scotia	8,766	8,840	76,015	78,431
New Brunswick	2,371	2,248	21,339	20,717
Quebec	7,346	6,211	51,311	50,914
Totals	**19,709**	**18,541**	**158,230**	**159,875**

[1] Amounts include payments to owners of vessels and boats.

Scientific Research.—Operating under the control of the Minister of Fisheries, the Fisheries Research Board of Canada, known for some years as the Biological Board, is, in effect, the scientific division of the Department. Reference to fisheries research will be found in a special article on scientific and industrial research which appears at pp. 998–1001 of the 1940 Year Book. The Board conducts six permanent fisheries research stations—two on the Pacific Coast, three on the Atlantic Coast, and one at Winnipeg, which is concerned entirely with freshwater studies—and one or two sub-stations. Fisheries scientists and technicians carry on at these stations, or from these stations as bases, year-round investigations and experiments in connection with problems of the Canadian fisheries. Some of the stations are concerned with biological studies, others with investigations and experiments relating to fish handling and fish processing.

International Problems.—From time to time in the past, the problem regarding United States privileges in connection with fisheries in Canadian Atlantic waters has been of considerable importance and an outline of this problem will be found at pp. 351–352 of the 1934–35 Year Book. Since 1933, under the *modus vivendi* plan which grew out of the unratified treaty of 1888, United States fishing vessels have again been permitted entry to Canadian Atlantic ports to purchase bait and other supplies. Port privileges have also been extended on the Pacific Coast to United States halibut fishing vessels for some years past and, more recently, to United States vessels fishing for black cod and several other species. Similar privileges in United States ports on the Pacific Coast have been granted by the United States Government to Canadian fishing vessels. The privileges include permission to tranship catches by weight, ship crews, and so on.

In the Great Lakes region, international questions relating to the fisheries are complicated by the fact that Provincial and State Governments may be concerned, as well as the national authorities of Canada and the United States. However, on Apr. 2, 1946, a Convention between the two countries was signed at Washington, D.C., to provide for the development, protection and conservation of the Great Lakes fisheries through joint action. Under the Convention, which followed a study of Great Lakes fisheries matters by a board representative of Canada and the United States, the two Governments agreed to establish and maintain a Joint Commission which "shall undertake to develop a comprehensive plan for the effective management of the fisheries resources of the Great Lakes for the purpose of securing a maximum use of these resources consistent with their perpetuation". As defined for convention purposes, the term "Great Lakes" includes Lake Ontario, Lake Erie, Lake St. Clair, Lake Huron, Lake Michigan, Lake Superior, and the connecting waters, bays and component parts of each lake, and also the St. Lawrence River from Lake Ontario to the 45th parallel of latitude.

Pacific Coast fisheries problems of outstanding importance which have been the objects of joint action by Canada and the United States in comparatively recent years are the preservation of the halibut fishery and the restoration to its former proportions of the sockeye salmon fishery of the Fraser River system. The International Fisheries Commission, equally representative of either country, deals with the halibut fishery and, following research carried on under the Commission and regulatory controls based on that research, the halibut stocks have now been greatly increased in abundance. In 1930, the halibut resources of the North Pacific and Bering Sea were apparently nearing depletion. Since that time the stocks, in the principal fishing areas at least, have more than doubled. Like the Halibut Commission, the International Pacific Salmon Fisheries Commission is equally representative of Canada and the United States. The major project which it has so far undertaken in its program for restoring the Fraser sockeye fishery has been the conquest of conditions at Hell's Gate Canyon, a narrow gorge on the Fraser River in British Columbia, which Commission research had shown to be the main factor in the way of rebuilding the sockeye run. Large-scale fishways were cut through the rock on either side of the Canyon, following intensive scientific and engineering studies by Commission experts, and they have been successful in enabling spawning salmon to make their way past Hell's Gate at water levels which had previously prevented large numbers of the fish from ascending above the Canyon, and had, therefore, kept down the size of the run by reducing reproduction.

FAO and Its Relation to Fisheries.—The word "agriculture" in FAO—United Nations Food and Agriculture Organization—is used in a sufficiently broad sense to include the fisheries and forestry. The functions of the Organization as they concern the fisheries in particular are given at pp. 291–294 of the 1946 Year Book.

Subsection 2.—The Provincial Governments

The work that is being done by the different Provincial Governments in connection with the administration of commercial and game fisheries, assistance to the industry, educational and research work, and conservation is outlined at pp. 279–286 of the 1945 Year Book.

Section 4.—The Modern Fishing Industry*

Subsection 1.—Primary Production

The latter half of the nineteenth century saw the commencement of expansion in the commercial fishing industry of Canada. In 1844, the estimated value of the catch was only $125,000. By 1900, it had reached almost $22,000,000 and the growth continued with little interruption until 1918, when it reached $60,000,000. This figure was not again reached until 1941, owing largely to lower prices rather than to smaller catches, but in that year a new peak of $62,258,997 was reached. In the three latest years further increases were recorded, the 1945 figure of $113,690,630 showing a gain of 82·6 p.c. over 1941. The figures given represent the total value of fish as marketed, whether in a fresh, dried, canned or otherwise prepared state.

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* Revised under the direction of W. H. Losee, Director, Census of Industry and Merchandising, Dominion Bureau of Statistics, by W. H. Lanceley, Chief, Fisheries and Animal Products Statistics.

2.—Values of the Products of the Fisheries, 1870-1945

Year	Value	Year	Value	Year	Value	Year	Value
	$		$		$		$
1870	6,577,391	1907	25,499,349	1920	49,241,339	1933	27,496,946
1875	10,350,385	1908	25,451,085	1921	34,931,935	1934	34,022,323
1880	14,499,979	1909	29,629,169	1922	41,800,210	1935	34,427,854
1885	17,722,973	1910	29,965,142	1923	42,565,545	1936	39,165,055
1890	17,714,900	1911	34,667,872	1924	44,534,235	1937	38,976,294
1895	20,199,338	1912	33,389,464	1925	47,942,131	1938	40,492,976
1900	21,557,639	1913	33,207,748	1926	56,360,633	1939	40,075,922
1901	25,737,153	1914	31,264,631	1927	49,123,609	1940	45,118,887
1902	21,959,433	1915	35,860,708	1928	55,050,973	1941	62,258,997
1903	23,100,878	1916	39,208,378	1929	53,518,521	1942	75,116,933
1904	23,516,439	1917	52,312,044	1930	47,804,216	1943	85,594,544
1905	29,479,562	1918	60,259,744	1931	30,517,306	1944	89,427,508
1906	26,279,485	1919	56,508,479	1932	25,957,109	1945	113,690,630

In the early days of the industry, Nova Scotia held the leadership among the provinces, but British Columbia now occupies first place with 39·2 p.c. of the total value of products in 1945, Nova Scotia comes second with 27·0 p.c., and New Brunswick third with 11·7 p.c.

3.—Values of the Products of the Fisheries, by Provinces, 1940-45

Province or Territory	1940	1941	1942	1943	1944	1945
	$	$	$	$	$	$
Prince Edward Island	714,870	952,026	1,639,539	2,860,946	2,598,975	3,076,811
Nova Scotia	9,843,456	12,634,957	15,297,482	21,684,435	23,662,055	30,706,900
New Brunswick	4,965,618	6,484,831	7,132,420	11,128,864	11,968,692	13,270,376
Quebec	2,002,053	2,842,041	4,194,092	5,632,809	5,361,567	7,727,222
Ontario	3,035,100	3,518,402	4,135,205	5,292,268	4,938,193	7,261,661
Manitoba	1,988,545	3,233,115	3,577,616	4,564,551	3,581,795	4,263,670
Saskatchewan	403,510	414,492	585,782	1,154,544	1,482,223	1,286,361
Alberta	450,574	440,444	492,182	795,000	929,887	1,450,502
British Columbia	21,710,167	31,732,037	38,059,559	32,478,632	34,900,990	44,531,858
Yukon	4,994	6,652	3,056	2,495	3,131	115,269[1]
Totals	**45,118,887**	**62,258,997**	**75,116,933**	**85,594,544**	**89,427,508**	**113,690,630[1]**

[1] Includes the Northwest Territories, reported for the first time in 1945.

The cod of the Atlantic and the salmon of the Pacific were rivals for first place in the earlier years of the fishing industry; since 1895 salmon has definitely taken the lead, with lobster in second place in recent years until the War reduced the foreign market. In 1945, cod, with an increase over 1944 of 24·1 p.c. in the quantity caught, took second place in order of marketed value; herring was third.

Statistics showing the quantity of sea and inland fish landed have been collected for many years, but historical figures have not been published since it was felt that to add the large quantities of cheap fish, such as herring, to those of such expensive varieties as salmon or lobster had little significance so far as the domestic catch was concerned. The organization of international food bodies following the Second World War, however, has changed this outlook and made it advisable to record the total quantities of sea-food available in view of world requirement for fisheries products and adequate knowledge of world resources. Tables 4 and 5 give the figures from 1918 to 1945.

4.—Quantities of Sea and Inland Fish Landed, by Groups, 1918-45

Year	Sea Fish					Inland Fish	Total
	Groundfish[1]	Salmon	Shellfish	Flatfish[2]	Other		
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1918	3,170,585	1,529,925	404,772	245,605	2,979,936	883,786	9,214,609
1919	3,644,066	1,687,827	484,944	288,151	2,499,849	701,485	9,306,322
1920	2,741,472	1,282,023	503,219	281,280	2,777,049	668,951	8,253,994
1921	2,539,394	875,923	514,314	366,581	2,327,124	665,573	7,288,909
1922	3,073,484	1,545,412	518,902	340,734	2,796,115	663,270	8,937,917
1923	2,271,091	1,560,322	555,041	367,131	2,414,574	676,763	7,844,922
1924	2,473,774	2,022,720	479,827	374,768	3,055,054	731,426	9,137,569
1925	2,903,918	1,930,728	539,505	371,542	3,481,174	717,778	9,944,645
1926	3,468,133	2,178,350	552,338	385,845	4,170,962	836,439	11,592,067
1927	2,612,932	1,539,508	565,506	346,090	4,975,914	862,390	10,902,340
1928	2,949,721	2,284,170	554,987	361,195	5,133,217	857,591	12,140,881
1929	2,918,245	1,549,325	602,889	366,640	5,186,114	877,639	11,500,852
1930	2,495,457	2,360,699	629,859	316,477	4,510,985	749,465	11,062,942
1931	2,050,073	1,341,913	628,410	231,919	4,660,131	689,395	9,601,841
1932	1,994,963	1,328,807	681,669	213,047	3,310,383	634,963	8,163,832
1933	2,060,947	1,454,137	590,342	223,221	3,145,844	655,753	8,130,244
1934	2,401,343	1,694,808	595,420	152,743	3,769,606	716,949	9,330,869
1935	2,179,380	1,822,136	538,627	168,454	3,967,981	735,535	9,412,113
1936	2,457,376	2,027,430	509,792	179,425	4,947,148	813,422	10,934,593
1937	2,381,519	1,722,097	535,382	209,728	5,012,291	891,652	10,752,669
1938	2,458,844	1,765,087	541,423	236,158	4,758,094	895,427	10,655,033
1939	2,325,802	1,500,835	491,842	255,853	5,170,316	893,087	10,637,735
1940	2,617,309	1,457,014	465,586	233,705	6,570,641	791,516	12,135,771
1941	2,514,153	1,936,642	653,805	228,311	5,762,700	893,041	11,988,652
1942	2,537,368	1,645,269	557,049	187,407	6,306,617	828,378	12,062,088
1943	2,830,612	1,241,157	576,938	207,694	6,591,089	910,751	12,358,241
1944	3,024,318	1,098,647	616,311	232,327	5,956,708	863,145	11,791,456
1945	3,760,927	1,727,373	628,966	278,546	6,067,078	908,919	13,371,809

[1] Includes cod, haddock, hake, cusk and pollock.

[2] Includes halibut, sole, flounders, Canadian plaice, yellowtail, witch, skate and others.

5.—Quantities of Sea and Inland Fish Landed, by Provinces, 1918-45

Year	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1918	183,613	2,665,173	1,425,338	1,491,718	448,824	310,200
1919	185,937	3,148,432	1,335,195	1,259,222	385,574	193,384
1920	171,167	2,663,738	1,281,793	770,477	390,989	170,701
1921	167,581	2,412,382	1,033,388	763,623	366,697	181,463
1922	203,314	2,727,391	1,641,247	771,413	380,646	165,421
1923	212,423	1,992,063	1,156,370	799,383	386,227	154,090
1924	202,615	2,222,276	1,545,083	786,804	417,271	177,898
1925	262,821	2,519,474	1,299,814	1,060,540	343,806	190,240
1926	232,298	3,201,987	1,409,136	1,102,113	322,557	304,307
1927	211,260	2,596,031	1,275,618	918,828	348,916	322,967
1928	204,763	2,695,819	1,496,322	900,816	333,774	307,321
1929	243,404	2,749,064	1,564,926	870,682	338,514	331,291
1930	256,710	2,577,768	1,243,913	772,266	349,507	238,941
1931	235,830	2,117,177	1,139,620	850,766	332,044	189,595
1932	237,368	1,957,136	1,017,549	919,719	308,627	184,018
1933	223,473	2,155,217	1,296,624	933,361	292,012	198,913
1934	233,262	2,380,033	1,357,389	1,065,623	312,306	234,590
1935	208,918	2,239,843	1,384,219	896,111	352,131	196,960
1936	248,138	2,503,948	1,586,686	977,278	342,533	262,827
1937	275,250	2,540,309	1,380,808	796,101	360,910	284,412
1938	294,204	2,769,046	1,274,405	949,461	349,104	298,612
1939	305,661	2,779,909	1,583,296	988,294	338,473	325,602
1940	255,915	2,765,829	1,445,685	1,029,704	279,620	307,426
1941	250,523	2,736,573	1,779,864	968,610	269,466	417,202
1942	292,454	2,551,281	1,623,387	1,115,848	263,780	359,353
1943	332,405	2,995,413	1,815,208	1,148,645	305,932	358,646
1944	272,227	3,345,588	1,751,725	1,028,860	310,392	293,231
1945	310,535	3,955,288	1,556,964	1,235,779	342,748	310,960

5.—Quantities of Sea and Inland Fish Landed, by Provinces, 1918-45—concluded

Year	Saskat-chewan	Alberta	British Columbia	Grand Total[1]	Total Sea Fish	Total Inland Fish
	cwt.	cwt.	cwt.	cwt.	cwt.	cwt.
1918	59,530	33,484	2,594,709	9,214,609	8,330,823	883,786
1919	56,858	42,047	2,699,103	9,306,322	8,604,837	701,485
1920	36,287	51,055	2,715,307	8,253,994	7,585,043	668,951
1921	32,784	53,295	2,275,868	7,288,909	6,623,336	665,573
1922	32,013	45,689	2,970,187	8,937,917	8,274,647	663,270
1923	37,764	51,872	3,054,254	7,844,922	7,168,159	676,763
1924	60,685	45,326	3,678,636	9,137,569	8,406,143	731,426
1925	61,971	55,969	4,149,203	9,944,645	9,226,867	717,778
1926	56,715	67,025	4,895,081	11,592,067	10,755,628	836,439
1927	57,800	67,267	5,102,646	10,902,340	10,039,950	862,390
1928	61,931	71,795	6,066,100	12,140,881	11,283,290	857,591
1929	61,160	79,388	5,261,274	11,500,852	10,623,213	877,639
1930	46,843	51,210	5,524,384	11,062,942	10,313,477	749,465
1931	52,605	32,848	4,649,962	9,601,841	8,912,446	689,395
1932	36,139	27,124	3,474,946	8,163,832	7,528,869	634,963
1933	41,820	29,813	2,958,005	8,130,244	7,474,491	655,753
1934	40,383	40,364	3,666,154	9,330,869	8,613,920	716,949
1935	49,531	41,567	4,041,788	9,412,113	8,676,578	735,535
1936	64,503	51,243	4,896,753	10,934,593	10,121,171	813,422
1937	97,761	62,376	4,954,195	10,752,669	9,861,017	891,652
1938	87,805	69,200	4,562,864	10,655,033	9,759,606	895,427
1939	87,240	56,720	4,172,224	10,637,735	9,744,648	893,087
1940	72,457	71,912	5,906,896	12,135,771	11,344,255	791,516
1941	78,445	68,552	5,418,891	11,988,652	11,095,611	893,041
1942	81,802	61,850	5,712,050	12,062,088	11,233,710	828,378
1943	104,866	66,431	5,230,536	12,358,241	11,447,490	910,751
1944	129,588	76,338	4,583,226	11,791,456	10,928,311	863,145
1945	100,215	85,824	5,440,291	13,371,809	12,462,890	908,919

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[1] Includes Yukon for all years and the Northwest Territories for 1945.

In Table 6 the quantities given are those of primary products caught, but the values are those of all products marketed, both primary and secondary. The grand totals are subdivided to show the values of the sea fisheries and inland fisheries, respectively, as compared with the whole. More detailed tables of quantities and values of both sea and inland fish marketed may be found in "Report on Fisheries Statistics", published by the Dominion Bureau of Statistics.

6.—Quantities Caught and Values of All Products Marketed of the Chief Commercial Fishes, 1941-45

NOTE.—The catch as shown in this table is in each case exclusive of the quantity of livers landed, but the value includes the value of the livers as marketed. As the 1945 figures were entered in proof the order of importance is that of 1944.

Kind of Fish		1941	1942	1943	1944	1945[1]	Increase or Decrease 1945 Compared with 1944
Salmon	cwt.	1,938,182	1,646,558	1,242,391	1,099,161	1,727,855	+628,694
	$	21,475,275	22,926,861	15,642,190	16,385,365	25,994,395	+9,609,030
Cod	cwt.	1,957,153	1,942,293	2,155,179	2,360,450	2,929,332	+568,882
	$	7,494,604	9,962,312	13,064,805	14,787,461	19,662,480	+4,875,019
Herring	cwt.	2,785,264	3,619,720	3,226,632	3,219,158	3,948,100	+728,942
	$	6,702,947	10,931,007	11,937,287	11,040,489	13,887,416	+2,846,927
Lobster	cwt.	278,023	280,250	301,092	333,502	371,801	+38,299
	$	3,858,733	5,084,558	8,228,533	9,048,220	13,260,185	+4,211 965

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[1] Includes the Northwest Territories, reported for the first time in 1945.

6.—Quantities Caught and Values of All Products Marketed of the Chief Commercial Fishes, 1941-45—concluded

Kind of Fish	1941	1942	1943	1944	1945[1]	Increase or Decrease 1945 Compared with 1944
Grayfish............. cwt.	143,099	100,790	79,024	24,439	56[2]	[2]
$	672,521	1,294,144	2,106,565	3,751,567	2,347,693	−1,403,874
Whitefish............ cwt.	178,659	167,062	167,806	177,000	188,538	+11,538
$	2,492,671	3,055,373	3,575,923	3,518,279	4,089,599	+571,320
Sardines.............. bbl.	443,733	320,558	396,381	413,152	339,255	−73,897
$	2,846,808	2,143,623	3,003,796	3,425,899	2,915,171	−510,728
Halibut.............. cwt.	149,525	121,757	139,043	146,250	162,576	+16,326
$	2,425,561	2,455,970	3,065,375	3,299,972	3,646,936	+346,964
Haddock............. cwt.	287,766	262,060	307,454	259,650	322,208	+62,558
$	1,410,227	1,734,410	2,544,409	2,255,325	2,297,485	+42,160
Pickerel.............. cwt.	126,304	128,041	135,034	149,841	147,610	−2,231
$	1,253,244	1,440,774	2,142,376	2,233,768	2,733,344	+499,576
Pilchards............. cwt.	1,200,913	1,317,673	1,774,774	1,182,325	687,759	−494,566
$	1,781,876	2,016,607	2,756,416	2,222,181	1,439,145	−783,036
Mackerel............. cwt.	351,132	303,080	370,857	342,869	402,069	+59,200
$	1,117,658	1,318,204	2,274,137	2,206,689	2,810,020	+603,331
Ling cod.............. cwt.	40,865	42,500	58,691	84,250	79,143	−5,107
$	359,299	633,567	874,633	1,282,617	1,166,738	−115,879
Trout................. cwt.	56,575	46,321	46,988	49,877	56,382	+6,505
$	972,601	1,032,249	1,253,059	1,145,527	1,404,540	+259,013
Smelts............... cwt.	74,550	71,480	60,024	69,115	64,610	−4,505
$	614,783	724,040	863,346	1,011,983	960,819	−51,164
Blue pickerel......... cwt.	16,211	44,381	96,609	94,133	65,825	−28,308
$	188,048	563,639	1,391,170	954,509	1,474,056	+519,547
Hake................ cwt.	164,885	238,485	213,451	197,001	238,161	+41,160
$	297,842	689,985	1,102,601	917,844	1,398,081	+480,237
Pollock.............. cwt.	89,423	87,855	149,630	202,154	266,384	+64,230
$	215,880	286,110	700,663	803,401	1,155,011	+351,610
Saugers............... cwt.	143,951	141,419	85,321	66,233	59,849	−6,384
$	1,038,470	1,238,500	1,056,374	791,006	727,062	−63,944
Swordfish............ cwt.	13,463	19,335	30,209	19,890	27,171	+7,281
$	259,461	519,869	1,017,184	678,870	1,165,225	+486,355
Clams................ cwt.	156,463	155,536	135,785	150,769	144,798	−5,971
$	347,046	478,557	561,439	664,403	633,628	−30,775
Oysters............... bbl.	59,197	41,089	43,618	55,815	37,208	−18,607
$	314,159	293,913	376,030	523,936	500,536	−23,400
Pike.................. cwt.	80,991	43,403	56,021	57,302	56,089	−1,213
$	349,605	203,322	450,946	481,820	503,676	+21,856
Tullibee.............. cwt.	76,753	72,274	88,534	65,593	79,519	+13,926
$	320,001	336,747	490,516	436,760	645,355	+208,595
Black cod............ cwt.	17,472	12,279	20,959	22,325	20,987	−1,338
$	189,527	193,840	399,923	414,753	368,408	−46,345
Perch................ cwt.	49,148	31,681	26,981	30,029	29,985	−44
$	475,344	414,097	400,457	351,082	525,064	+173,982
Scallops.............. gal.	78,422	69,957	57,399	60,283	96,251	+35,968
$	187,747	256,765	292,517	323,071	544,918	+221,847
Alewives............. cwt.	62,363	65,777	105,956	94,223	138,891	+44,668
$	82,311	133,709	315,158	294,743	410,251	+115,508
Red and rock cod..... cwt.	2,566	4,828	21,800	31,637	34,157	+2,520
$	15,832	51,375	150,551	284,828	284,759	−69
Soles................. cwt.	4,954	6,375	7,610	31,826	51,718	+19,892
$	30,470	42,670	49,320	271,231	438,219	+166,988
Grand Totals[3]..... $	**62,258,997**	**75,116,933**	**85,594,544**	**89,427,508**	**113,690,630**	**+24,263,122**
Totals, Sea Fish[3].... $	**54,325,983**	**65,977,321**	**73,180,919**	**78,102,463**	**98,995,493**	**+20,893,030**
Totals, Inland Fish[3] $	**7,933,014**	**9,139,612**	**12,413,625**	**11,325,045**	**14,695,137**	**+3,370,092**

[1] Includes the Northwest Territories, reported for the first time in 1945. [2] Livers only were landed on the Pacific Coast. [3] Totals include minor items not specified.

7.—Percentages of Total Value and Indexes of Volume of Fisheries Production, by Principal Kinds of Sea and Inland Fish, 1934-45

NOTE.—Based on values as marketed and quantities caught. Since 1945 figures were entered in proof, the order of importance is that of 1944.

Kind of Fish	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
	PERCENTAGES OF TOTAL VALUE											
Salmon	37·9	36·4	35·4	31·7	37·0	33·5	31·4	34·4	30·5	18·3	18·3	22·8
Cod	9·8	8·0	8·5	8·1	8·2	8·1	11·0	12·0	13·3	15·3	16·5	17·3
Herring	5·3	5·3	6·6	6·6	6·1	9·4	13·9	10·8	14·5	13·9	12·3	12·2
Lobster	12·6	12·7	11·2	11·9	9·4	9·4	7·1	6·2	6·8	9·6	10·1	11·7
Grayfish	0·2	0·2	0·2	0·2	0·3	0·2	0·5	1·1	1·7	2·5	4·2	2·1
Whitefish	4·0	4·2	3·9	4·8	4·1	4·3	4·3	4·0	4·1	4·2	3·9	4·6
Sardines	3·1	3·9	4·1	3·9	3·4	5·7	4·2	4·6	2·9	3·5	3·8	2·6
Halibut	3·3	3·7	3·7	4·1	4·4	5·3	4·1	3·9	3·3	3·6	3·7	3·2
Haddock	3·2	3·3	3·3	3·3	3·4	3·4	3·2	2·3	2·3	3·0	2·5	2·0
Pickerel	2·5	2·3	2·8	2·7	2·6	2·1	2·2	2·0	1·9	2·5	2·5	2·4
Pilchards	1·6	1·9	1·7	2·3	2·1	0·3	1·4	2·9	2·7	3·2	2·5	1·3
Mackerel	1·2	0·9	1·2	1·6	1·4	2·2	1·5	1·8	1·8	2·7	2·5	2·5
Ling cod	0·8	0·9	1·0	0·7	0·7	0·8	0·7	0·6	0·8	1·0	1·4	1·0
Trout	1·7	2·2	2·2	2·6	2·6	2·0	1·8	1·6	1·4	1·5	1·3	1·2
Smelts	1·6	1·7	1·7	1·1	1·2	1·2	1·4	1·0	1·0	1·0	1·1	0·8
Blue pickerel	0·3	0·9	1·6	2·1	0·1	1·0	0·5	0·3	0·8	1·6	1·1	1·3
Hake and cusk[1]	0·8	0·6	0·8	0·8	0·7	0·5	0·5	0·5	0·9	1·3	1·0	1·2
Pollock	0·3	0·2	0·3	0·6	0·3	0·3	0·3	0·3	0·4	0·8	0·9	1·0
Saugers	0·7	0·6	0·7	1·0	1·2	0·1	1·4	1·7	1·6	1·2	0·9	0·6
Swordfish	0·5	0·8	0·6	0·6	0·3	0·6	0·7	0·4	0·7	1·2	0·8	1·0
Clams and quahaugs[2]	0·3	0·5	0·5	0·7	0·7	0·4	0·5	0·6	0·6	0·7	0·7	0·6
Oysters	0·5	0·5	0·5	0·5	0·4	0·4	0·4	0·5	0·4	0·4	0·6	0·4
Pike	0·4	0·5	0·6	0·6	0·6	0·5	0·4	0·6	0·3	0·5	0·5	0·4
Tullibee	0·6	0·7	0·7	0·7	0·7	0·6	0·6	0·5	0·4	0·6	0·5	0·6
Black cod	0·1	0·2	0·1	0·2	0·2	0·2	0·3	0·3	0·3	0·5	0·5	0·3
Perch	1·1	1·2	0·7	0·7	0·8	0·6	0·7	0·8	0·6	0·5	0·4	0·5
Scallops	0·5	0·6	0·9	0·8	0·3	0·2	0·3	0·3	0·3	0·3	0·4	0·5
Alewives	0·2	0·3	0·2	0·2	0·3	0·3	0·1	0·1	0·2	0·4	0·3	0·4
Red and rock cod	[3]	[3]	[3]	[3]	0·1	[3]	[3]	[3]	0·1	0·2	0·3	0·3
Soles	0·2	0·2	0·3	0·3	0·3	0·4	0·4	0·1	0·1	0·1	0·3	0·4
Grand Totals[4]	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**
Totals, Sea Fish[4]	85·9	84·7	84·1	82·1	83·4	84·8	86·2	87·3	87·8	85·5	87·3	87·1
Totals, Inland Fish[4]	14·1	15·3	15·9	17·9	16·6	15·2	13·8	12·7	12·2	14·5	12·7	12·9
	INDEXES OF VOLUME (1926=100)											
Salmon	77·8	83·7	93·1	79·1	81·0	68·9	66·9	88·9	75·5	57·0	50·4	79·2
Cod	63·8	57·3	63·4	56·8	63·4	60·9	72·0	72·9	72·4	78·8	87·9	109·1
Herring	78·5	85·0	117·7	126·2	104·6	138·9	193·4	115·0	149·4	133·1	132·0	162·9
Lobster	106·7	94·2	83·4	91·3	92·6	92·7	78·9	81·9	82·5	88·7	98·2	109·5
Grayfish	145·6	133·6	181·3	185·3	245·2	143·3	177·0	178·0	125·4	98·3	30·4	[5]
Whitefish	75·9	77·4	75·9	91·1	80·9	86·3	88·2	93·7	87·6	88·0	92·8	98·9
Sardines	110·6	108·4	142·8	92·1	106·5	183·1	129·6	256·2	185·1	228·9	238·6	195·9
Halibut	36·2	38·9	40·7	44·3	47·8	54·3	43·6	44·0	35·8	40·9	43·0	47·8
Haddock	71·6	74·2	81·1	78·3	79·2	77·5	71·6	57·9	52·7	61·9	52·3	64·9
Pickerel	97·2	86·9	115·5	113·5	102·2	95·6	83·9	100·2	101·6	107·1	118·8	117·1
Pilchards	88·7	94·0	91·7	99·1	106·7	11·4	59·3	123·8	135·8	183·0	121·9	70·9
Mackerel	165·3	139·0	197·1	207·2	247·3	450·8	309·4	304·0	262·4	321·1	296·9	348·2
Ling cod[6]	96·2	126·5	138·7	86·2	93·6	95·6	95·8	82·2	85·5	118·7	170·4	160·1
Trout	75·0	84·3	92·7	89·7	92·6	80·3	69·1	71·9	58·9	59·7	63·4	71·6
Smelts	64·9	86·1	102·8	73·0	77·2	76·8	89·6	80·8	77·4	65·0	74·1	70·0
Blue pickerel	80·0	168·5	227·0	310·8	240·8	202·6	69·7	53·4	146·1	317·9	309·8	216·6
Hake and cusk[1]	163·0	125·6	151·0	151·8	173·4	139·3	149·4	119·0	157·9	141·3	130·4	157·7
Pollock	98·4	94·9	146·2	277·5	117·3	109·6	119·3	103·5	101·7	173·2	233·9	308·2
Saugers[7]	–	–	–	–	–	–	–	–	–	–	–	–
Swordfish	108·9	172·7	138·0	116·1	84·5	138·2	177·0	104·1	149·5	233·5	153·8	210·0
Clams and quahaugs[2]	157·3	254·4	264·2	262·7	277·6	176·1	209·6	288·5	286·8	250·3	278·0	267·0
Oysters	112·8	121·8	121·2	110·9	110·0	133·1	121·1	266·0	187·7	194·8	250·8	167·2
Pike	51·3	61·7	75·0	70·8	85·9	77·9	66·8	111·7	59·8	77·2	79·0	77·3
Tullibee	43·4	39·1	58·4	55·1	57·1	68·8	71·1	75·6	71·2	87·2	64·6	78·3
Black cod	61·7	93·6	69·5	129·5	81·7	87·5	134·5	168·7	118·5	202·3	215·5	202·6
Perch	238·5	236·0	105·7	115·5	143·2	108·3	130·1	161·2	103·9	88·5	94·5	98·3
Scallops	387·5	574·2	736·0	792·0	412·4	213·7	286·8	338·0	301·5	247·4	259·8	414·9
Alewives	97·9	115·0	123·0	103·7	144·7	170·9	86·6	86·3	91·1	146·7	130·4	192·2
Red and rock cod	42·2	66·8	83·9	46·3	176·7	56·6	59·8	65·9	124·1	560·3	813·1	877·8
Soles	123·8	141·8	207·9	234·8	201·9	259·3	232·7	42·4	54·5	65·1	272·2	442·4

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[1] Hake only for 1941 and later years. [2] Clams only for 1941 and later years. [3] Less than 0·1 p.c. [4] Totals include minor items not specified. [5] See foonote [2], Table 6. [6] Since ling cod was included with cod for 1926, the average of the years 1927-30 was taken as the quantity of ling cod for 1926 and this was deducted from the quantity of cod reported for 1926, the resulting amount being used as the base for the volume index. [7] Indexes are not given in this case since no production was recorded for the base year.

The capital investment in the fisheries industry, represented by vessels, boats, nets, traps, piers and wharves, etc., used in the primary operations of catching and landing the fish, had a total value in 1945 of $40,883,797 of which $33,614,976 or 82 p.c. was credited to the sea fisheries. The number of men engaged in fishing during the year was 67,423; of this number 47,998 were employed in the sea fisheries and 19,425 in the inland fisheries, a gain of 1,577 for the sea fisheries and 1,638 for the inland fisheries over the previous year.

8.—Fishing Vessels, Boats, Nets, Traps, etc., Used in Sea and Inland Fisheries, 1944 and 1945

Equipment	1944		1945	
	Number	Value	Number	Value
Sea Fisheries—		$		$
Steam trawlers	3	120,000	8	719,000
Draggers	19	386,600	43	791,500
Sailing, gasoline and diesel vessels	1,412	7,349,550	1,621	9,794,950
Gasoline and diesel boats	16,810	8,379,816	17,107	9,548,797
Sail and rowboats	12,986	345,382	12,687	354,838
Packers, carrying boats and scows	446	945,472	442	939,262
Herring gill nets	41,120	575,278	43,011	598,869
Mackerel gill nets	26,607[1]	408,990	28,850	474,885
Salmon gill nets	2,190	102,369	2,294	91,488
Gill nets, other	1,743	105,476	2,584	166,846
Salmon drift nets	12,196	1,738,542	12,575	1,750,186
Salmon trap nets	716	326,300	802	457,475
Trap nets, other	592	327,010	605	330,800
Smelt gill nets	8,347	37,539	8,307	39,964
Smelt bag or box nets	6,237[1]	316,325[1]	6,433	321,780
Pound nets	44	4,400	48	4,800
Oulachon nets	46	2,440	52	3,280
Shrimp nets	29	8,300	41	7,100
Salmon purse seines	258	395,050	274	440,050
Salmon drag seines	9	6,100	9	6,100
Seines, other	1,077	739,745	1,042	723,445
Weirs	735	479,090	498	434,503
Skates of gear	8,796	273,086	9,245	270,778
Small drag nets and inshore trawls	77[1]	29,300[1]	72	19,650
Tubs of trawl	23,464	399,127	23,981	429,374
Hand lines	52,856	226,393	52,585	224,282
Crab traps	4,455	16,875	5,874	18,445
Eel traps	355	622	356	624
Lobster traps	1,527,056	2,961,648	1,610,426	3,088,129
Lobster pounds	24	49,210	32	80,960
Oyster rakes	1,631	5,098	1,725	5,708
Scallop drags	285	9,498	254	11,798
Quahaug rakes	58	272	51	248
Fishing piers and wharves	1,632	471,685	1,582	507,755
Freezers and ice-houses	553	211,510	413	224,617
Small fish- and smoke-houses	5,844	644,809	5,442	629,229
Other gear	–	85,061	–	103,461
Total Values, Sea Fisheries	–	**28,483,968**	–	**33,614,976**
Inland Fisheries—				
Fish carriers	59	142,670	31	143,400
Tugs	88	620,150	99	781,700
Gasoline and diesel boats	1,776	1,154,130	1,881	1,304,733
Skiffs and canoes	4,556	195,907	4,294	195,202
Gill nets	–	2,911,646	–	2,927,156
Seines	267	24,280	213	23,985
Pound nets	904	471,310	1,068	561,530
Hoop nets	2,589	56,350	2,813	70,573
Dip and roll nets	43	2,509	39	1,474
Lines	4,436	8,937	3,791	10,164
Weirs	379	92,550	150	52,311
Spears	25	99	51	170
Eel traps	200	400	200	400
Fish wheels	4	1,800	10	2,600
Fishing piers and wharves	531	169,601	662	227,353
Freezers and ice-houses	1,050	623,722	914	766,454
Small fish- and smoke-houses	86	87,230	172	192,745
Other gear	–	9,512	–	6,871
Total Values, Inland Fisheries	–	**6,572,803**	–	**7,268,821**
Grand Totals[2]	–	**35,056,771**	–	**40,883,797**

[1] Revised since the publication of the 1946 Year Book.

[2] Does not include equipment used by fish-processing establishments.

9.—Persons Employed in Primary Fishing Operations, 1943-45

Employed in—	Sea Fisheries			Inland Fisheries		
	1943	1944	1945	1943	1944	1945
	No.	No.	No.	No.	No.	No.
Steam trawlers	56	85	155	Nil	Nil	Nil
Draggers	Nil	59	186	"	"	"
Vessels	5,977	6,551	7,466	[1]	[1]	[1]
Boats	37,205	36,697	36,760	9,054	9,260	9,863
Packers carrying boats and scows	726	666	768	114	Nil	Nil
Fishing, not in boats	1,936	2,363	2,663	6,391	8,527	9,562
Totals, Fishermen[2]	**45,900**	**46,421**	**47,998**	**15,559**	**17,787**	**19,425**

[1] Included with "boats". [2] These totals include all individuals employed in primary fishing operations irrespective of the period of employment. The census figures for 1941, given at p. 425, include only persons whose main occupation was fishing.

Subsection 2.—The Fish-Processing Industry

A special article on Developments in Fish Processing, prepared by the Deputy Minister of Fisheries, Ottawa, appears in the 1941 Year Book, pp. 225–226.

Among the fish-processing establishments in operation in Canada in 1945, the salmon canneries comprised the principal group with an investment valued at $12,248,403, or 36 p.c. of the total for all establishments. About 59 p.c. of the value of production of the establishments was in the form of fish canned, cured or otherwise prepared, and 41 p.c. fish marketed for consumption in a fresh state.

10.—Capital Investment in Fish-Processing Establishments, 1943-45

Kind of Establishment	1943		1944		1945	
	No.	Value[1]	No.	Value[1]	No.	Value[1]
		$		$		$
Salmon canneries	32	12,124,270	33	10,752,238	30	12,248,403
Fish-curing establishments	203	5,654,123	208	6,618,001	205	7,133,698
Sardine and other fish canneries	51	4,688,448	52	5,089,763	51	4,708,654
Lobster canneries	130	1,157,574	145	1,684,675	141	1,801,318
Reduction plants	31	2,718,693	27	3,223,680	29	3,578,375
Fresh-fish and freezing plants	59	4,330,504	51	4,805,668	69	4,239,413
Clam canneries	17	67,582	19	92,964	15	142,349
Totals	**523**	**30,741,194**	**535**	**32,266,989**	**540**	**33,852,210**

[1] Comprises values of land, buildings and machinery, products and supplies on hand, accounts and bills receivable, and cash.

11.—Fish-Processing Establishments, by Provinces, 1944 and 1945

Year and Kind of Establishment	P.E.I.	N.S.	N.B.	Que.	B.C.	Canada
	No.	No.	No.	No.	No.	No.
1944						
Lobster canneries	47	38	49	11	Nil	145
Salmon canneries	Nil	2	Nil	Nil	31	33
Clam canneries	3	5	10	1	Nil	19
Sardine and other fish canneries	15	8	12	7	10	52
Fish-curing establishments	3	91	45	60	9	208
Fresh-fish and freezing plants	1	16	8	14	12	51
Reduction plants	1	8	3	5	10	27
Totals, 1944	**70**	**168**	**127**	**98**	**72**	**535**
1945						
Lobster canneries	48	36	46	11	Nil	141
Salmon canneries	Nil	1	Nil	Nil	29	30
Clam canneries	6	4	4	“	1	15
Sardine and other fish canneries	8	11	20	6	6	51
Fish-curing establishments	3	93	40	62	7	205
Fresh-fish and freezing plants	2	19	7	23	18	69
Reduction plants	1	8	3	6	11	29
Totals, 1945	**68**	**172**	**120**	**108**	**72**	**540**

12.—Materials Used by and Products of Fish-Processing Establishments, 1941-45

Material and Product	1941	1942	1943	1944	1945
	$	$	$	$	$
Materials Used—					
Fish	20,263,678	28,001,244	33,016,090	34,278,057	52,273,281
Edible oils	293,083	210,650	261,972	333,618	289,883
Salt	363,201	460,162	528,320	536,865	528,680
Containers	7,448,313	6,825,130	6,588,422	6,879,997	7,957,147
Other	1,744,553	2,249,185	2,971,981	3,878,005	1,015,340
Totals, Materials Used	**30,112,828**	**37,746,371**	**43,366,785**	**45,906,542**	**62,064,331**
Products—					
Fish marketed for consumption, fresh	11,607,468	15,601,349	21,491,772	25,178,906	38,569,015
Fish canned, cured or otherwise prepared	36,568,623	43,839,627	43,313,197	43,703,973	54,975,716
Totals, Products	**48,176,091**	**59,440,976**	**64,804,969**	**68,882,879**	**93,544,731**

13.—Employees in Fish-Processing Establishments, 1943-45

Employed in—	1943			1944			1945		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Lobster canneries	1,462	2,091	3,553	1,873	2,769	4,642	1,814	2,454	4,268
Salmon canneries	2,201	2,163	4,364	2,212	1,921	4,133	1,998	2,210	4,208
Clam canneries	83	213	296	70	202	272	156	231	387
Sardine and other fish canneries	1,339	1,362	2,701	1,379	1,361	2,740	1,432	1,369	2,801
Fish-curing establishments	2,636	827	3,463	2,882	847	3,729	3,035	873	3,908
Fresh-fish and freezing plants	872	244	1,116	1,000	306	1,306	1,112	368	1,480
Reduction plants	372	34	406	412	38	450	413	46	459
Totals	**8,965**	**6,934**	**15,899**	**9,828**	**7,444**	**17,272**	**9,960**	**7,551**	**17,511**

14.—Employees and Salaries and Wages in Fish-Processing Establishments, 1936-45

NOTE.—Figures for 1920-29 will be found at p. 275 of the 1942 Year Book; those for 1930-35 at p. 301 of the 1946 edition.

Year	On Salaries		On Wages		Contract and Piece-Workers		Totals	
	No.	Amount	No.	Amount	No.	Amount	No.	Amount
		$		$		$		$
1936	558	734,678	10,073	2,544,903	4,607	724,269	15,238	4,003,850
1937	602	722,651	9,671	2,632,120	3,771	687,794	14,044	4,042,565
1938	642	772,493	9,092	2,775,425	4,750	680,037	14,484	4,227,955
1939	743	819,119	9,670	2,819,675	4,401	708,600	14,814	4,347,394
1940	790	988,340	8,843	3,540,220	5,411	868,230	15,044	5,396,790
1941	877	1,210,201	9,522	4,386,584	5,443	1,140,921	15,842	6,737,706
1942	933	1,314,050	11,295	6,228,282	3,489	848,377	15,717	8,390,709
1943	1,069	1,551,636	11,842	7,585,018	2,988	903,058	15,899	10,039,712
1944	1,218	1,861,835	13,461	8,711,423	2,593	743,054	17,272	11,316,312
1945	1,210	1,908,446	13,555	9,359,573	2,746	699,091	17,511	11,967,110

CHAPTER XVI.—MINES AND MINERALS[*]

CONSPECTUS

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A short historical outline of the development of the mineral industry in Canada is given at pp. 309-310 of the 1939 Year Book and a special article on the Development of Canada's Mineral Resources in Relation to the War Effort, so far as that development had taken place by the middle of 1940, appears at pp. 289-309 of the 1940 edition. An article on the Outlook for the Mineral Industry in Relation to the Economic Development of Canada is given at pp. 302-314 of the 1946 edition.

Section 1.—Mining Laws and Government Administration

Subsection 1.—Mining Laws and Regulations

The mineral lands of Canada, like other Crown lands, are administered by either the Dominion or the Provincial Governments. The Dominion Government administers the mineral lands of Yukon and the Northwest Territories as well as those in Indian Reserves and in National Parks; all other mineral lands lying within the boundaries of the several provinces are administered by the respective Provincial Governments.

Mining Laws and Regulations on Dominion Lands.[†]—Dominion lands to which these regulations apply are those administered by the Lands, Parks and Forests Branch, Department of Mines and Resources, and lie within Yukon and the Northwest Territories. Titles issued for Dominion lands, the property of the Dominion Government, in these Territories reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

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[*] Except where otherwise noted, this Chapter has been revised under the direction of W. H. Losee, Director, Census of Industry and Merchandising, Dominion Bureau of Statistics, by H. McLeod, Chief of the Mining, Metallurgical and Chemical Section.

[†] Revised by the Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

The Acts and regulations governing mining and quarrying on Dominion lands are: *Yukon and the Northwest Territories*—Alkali Mining Regulations; Carbon-Black Regulations; Coal Mining Regulations; Potash Regulations; Petroleum and Natural Gas Regulations (which provide that no person shall explore for petroleum or natural gas in Yukon or the Northwest Territories without first obtaining a permit to do so from the Minister of Mines and Resources); and Domestic Coal Permits. *Yukon*—Yukon Placer Mining Act (R.S.C., 1927, c. 216); Yukon Quartz Mining Act (R.S.C., 1927, c. 217); Dredging Regulations. *Northwest Territories*—Quartz Mining Regulations; Placer Mining Regulations; Dredging Regulations; Quarrying Regulations; and Permits to remove sand, stone and gravel from beds of rivers.

Copies of these regulations are available from the Lands, Parks and Forests Branch of the Department of Mines and Resources, Ottawa.

Provincial Mining Laws and Regulations.*—The granting of land in any province, except Ontario, no longer carries with it mining rights upon or under such land. In Ontario mineral rights are expressly reserved if they are not to be included. Some early grants in British Columbia, New Brunswick and Quebec also included certain mineral rights. Otherwise, mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (usually metallic ores), fuel (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations may be summarized as follows:—

Placer.—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held and the royalties to be paid.

General Minerals.—These are sometimes described as quartz, lode minerals or minerals in place. The most elaborate regulations apply in this division. In all provinces, except Alberta, a prospector's or miner's licence to search for mineral deposits, valid for a year, must be obtained. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit, with the payment of recording fees. Work to a specified value per annum must be performed upon the claim for a period up to five years, when a grant or lease of the mining rights may be obtained, subject to fees or annual rental. The taxation most frequently applied is a percentage of net profits of producing mines.

Fuels.—In those provinces in which coal occurs, the size of holdings is laid down and the conditions regarding work and rental under which they may be held. In some cases royalties are provided for. In the cases of petroleum and natural gas, a permit to drill on promising ground is usually first obtained. If oil or gas is discovered, the operator may obtain the lease or grant of a limited area subject to rental or fees. A royalty on production is sometimes payable.

Quarrying.—Regulations under this heading define the size of holding and the terms of lease or grant.

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* Compiled from material supplied by the Provincial Governments.

The legislation controlling mining and minerals in each province is given at pp. 278-279 of the 1942 Year Book. Copies of the legislation and regulations and details concerning them may be obtained from the following authorities:—

NOVA SCOTIA.—Minister of Mines, Parliament Buildings, Halifax.
NEW BRUNSWICK.—Department of Lands and Mines, Fredericton.
QUEBEC.—Minister of Mines, Quebec.
ONTARIO.—Department of Mines, Parliament Buildings, Toronto.
MANITOBA.—Director, Mines Branch, Department of Mines and Natural Resources, Winnipeg.
SASKATCHEWAN.—Department of Natural Resources and Industrial Development, Regina.
ALBERTA.—Department of Lands and Mines, Edmonton.
BRITISH COLUMBIA.—Department of Mines, Victoria.

Subsection 2.—Government Administration and Controls

The operation of various Government agencies which were formed during the War to stimulate production of major non-ferrous metals, petroleum and coal are reviewed at pp. 295-296 of the 1945 Year Book. The Non-Ferrous Metals Control under the Department of Munitions and Supply was dissolved at the end of November, 1945. The Administration of Non-Ferrous Metals under the Wartime Prices and Trade Board, however, at that time assumed full control over supply and distribution of non-ferrous metals in addition to continuing controls over prices. In November, 1945, the Steel Control was also ended by the Department of Munitions and Supply, and the Wartime Prices and Trade Board assumed supply and distribution problems in this field as well as continuing controls over prices. However, early in 1946, as a result of the steel industry strikes in the United States, the Steel Control was re-instituted under the Department of Reconstruction and Supply. The Oil Control and the Crown Company, Wartime Oils Limited, which operated under its direction, were also dissolved in November, 1945.

Dominion Fuel Board.*—The Board was created in 1922 to meet the need for a permanent organization responsible to the Government for a thorough and systematic study of the fuel situation and recurrent shortages experienced throughout Canada. It was composed of permanent members of the Dominion Civil Service and the staff of the Board constituted a Division in the Bureau of Mines and Geology, Department of Mines and Resources.

In 1941, the duties, functions and establishment of the Dominion Fuel Board were transferred to the Coal Administration under the Wartime Prices and Trade Board, and in the following year an Emergency Coal Production Board was established to extend financial assistance to coal operators with a view to increasing production. In 1943, the Coal Administration became the Coal Control and was placed under the jurisdiction of the Department of Munitions and Supply. The Emergency Coal Production Board was dissolved as at Mar. 31, 1946, and the Coal Control as at Dec. 31, 1946.

The Dominion Fuel Board was reconstituted under authority of Order in Council P.C. 5236 of Dec. 19, 1946, with the following appointed as members: Deputy Minister of Reconstruction and Supply (Chairman), Deputy Minister of Finance; and Secretary and Chief Executive Assistant, Department of Mines and Resources. (See also Chapter XXVIII on Post-War Reconstruction.)

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* Contributed by F. G. Neate, Executive Secretary, Dominion Fuel Board, Ottawa.

Bounties.—Government bounties or subsidies for protective duties on various minerals have been paid in the past years; for further details see Section 6, Part I of Chapter XXII on Domestic Trade.

Section 2.—Summary of Mineral Production

The importance of mineral production as compared with other primary industries in Canada is indicated in Chapter XI while its part in the foreign trade of Canada is dealt with in Chapter XXIII, Part II, especially Section 3, Subsections 2 and 5.

Subsection 1.—Value and Volume of Mineral Production

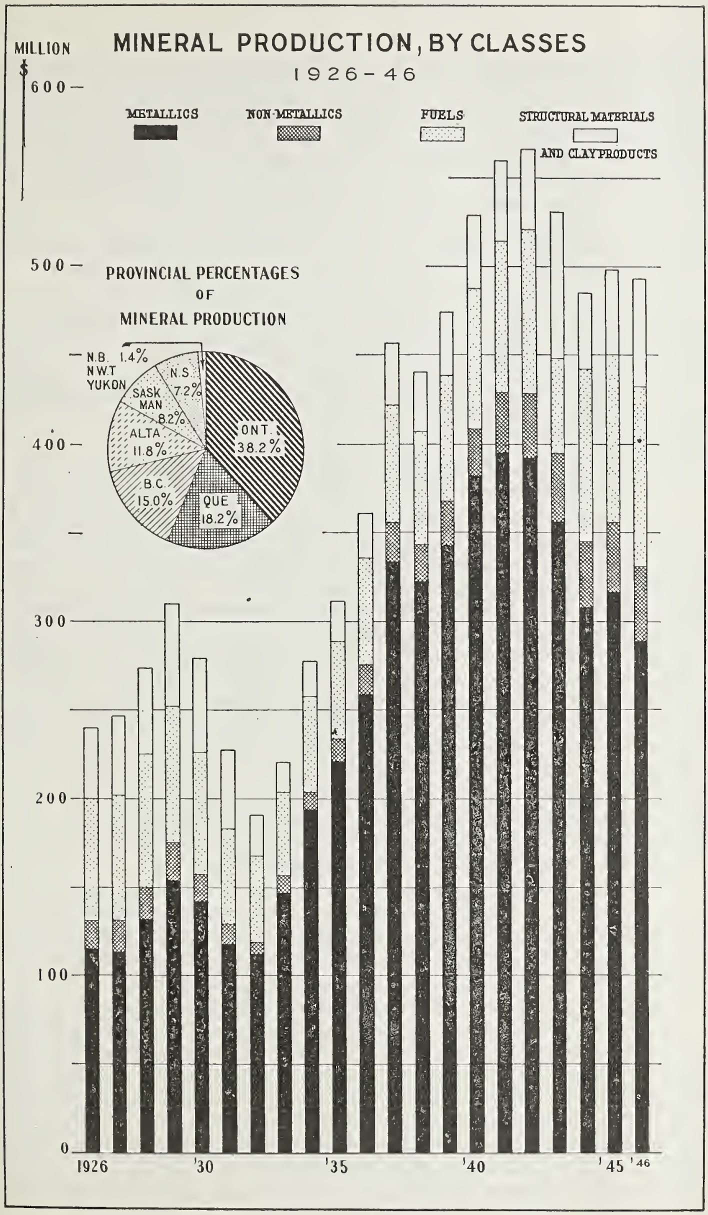
Historical Statistics.—Definite records of the annual value of mineral production go back only to 1886, although actual production began with the earliest settlements. The figures given in Table 1 are not strictly comparable throughout the whole period, minor changes having been adopted in methods of computing both the metallic content of ores sold and the valuations of the products. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends in the mineral industry.

1.—Value of Mineral Production, 1886-1946

Year	Total Value	Value per Capita	Year	Total Value	Value per Capita	Year	Total Value	Value per Capita
	$	$		$	$		$	$
1886.......	10,221,255	2·23	1930......	279,873,578	27·42	1938......	441,823,237	39·62
1890.......	16,763,353	3·51				1939......	474,602,059	42·12
1895.......	20,505,917	4·08	1931[1].....	230,434,726	22·21	1940......	529,825,035	46·55
1900.......	64,420,877	12·15	1932......	191,228,225	18·19	1941......	560,241,290	48·69
1905.......	69,078,999	11·51	1933......	221,495,253	20·83	1942......	566,768,672	48·63
1910.......	106,823,623	15·29	1934......	194,110,968	18·07	1943......	530,053,966	44·87
1915.......	137,109,171	17·18	1935......	312,344,457	28·80	1944......	485,819,114	40·57
1920.......	227,859,665	26·63	1936......	361,919,372	33·05	1945......	498,755,181	41·15
1925.......	226,583,333	24·38	1937......	457,359,092	41·41	1946[2].....	493,840,428	40·13

[1] Beginning with 1931, exchange equalization on gold production is included. [2] Subject to revision.

Current Production.—The depression beginning in 1930 had a profound effect upon the production of minerals in Canada. The decline in general commodity prices and the increased price of gold provided a two-fold stimulus to production and, as in the 1920's, output of gold was increased. This rise in the price of gold since 1931 ($20·67 per fine ounce in 1931 to $38·50, Canadian funds, in 1945) resulted in the mines being able to produce from ore that was hitherto unprofitable,



MINERAL PRODUCTION, BY CLASSES

1926-46

and stimulated prospecting to such a degree that many new mines were discovered. In addition, parts of Canada not hitherto of commercial importance were opened up and new communities were established with resultant markets for consumer goods and mine supplies. Base-metal prices declined to low levels, but the improvements that low prices and competition had brought about in productive facilities during the 1920's, together with the presence in the ores of small but appreciable quantities of precious metals, enabled the producing companies to carry on. After a period of readjustment, production expanded again. However, the serious reduction in industrial and construction operations materially restricted the production of coal, non-metallics other than fuels, and the various structural minerals.

The situation, therefore, prior to the outbreak of war in 1939 was that Canada's mineral industries were in a particularly strong position so far as their ability to make a substantial contribution to the country's war effort was concerned. Such a possible contribution had two aspects, namely:—

(1) The production at reasonable cost of those minerals that were essential for the manufacture of armaments, munitions and other war supplies as well as for non-war requirements.

(2) The creation of essential foreign credits by the production of gold and silver and of other minerals, surplus to national needs, for export sale to other countries.

The production of gold was reaching new high records each year so that, in 1940, Canada stood second among the countries of the world with 12·9 p.c. of the total world production. Developments in connection with base metals enabled Canadian companies to produce large supplies of copper, nickel, lead and zinc on a low-cost basis. The policy of the Department of Mines and Resources was to encourage and assist in the location of deposits of metals and minerals that were formerly imported, important among which were tungsten, molybdenite and magnesium. Metallurgical processes were extended to include final refining operations of sufficient capacity to handle the major part of Canadian production. In this field, while no aluminum ores are mined in Canada, with the availability of low-cost hydro-electric power, metallurgical plants were established for the production, from imported ores, of refined aluminum on a large scale. At the beginning of the War, producers of base metals entered into voluntary agreements with the Government of the United Kingdom to sell the surplus above Canadian requirements at practically no advance on the low prices prevailing before the War, thus assuring to the United Kingdom a supply of these essential materials without the risk of advancing prices.

In the case of fuels, non-metallics other than fuels, and structural materials, productive capacity in Canada before the War for many essential minerals was more than sufficient to provide for the then-existing industrial and civil requirements. Thus the expanding demands of war industries and the construction operations necessitated by various features of the war program were readily met.

Canada's mineral production in 1946 was estimated at $493,840,428 or $5,000,000 less than in 1945. The value of the metals group was down 9 p.c. to $289,704,209, which was the lowest figure since 1936, but clay products and structural materials rose 27 p.c. to $61,414,604, fuels increased 8 p.c. to $100,734,412, and other non-metallics advanced 6 p.c. to $41,987,203. Recoveries of base metals were considerably lower than in 1946. The tonnage of copper was down 22 p.c.; nickel and zinc declined 22 p.c., and 9 p.c., respectively. Output of lead, however, was up slightly. Gold production in 1946 totalled 2,807,643 fine oz. valued at $103,180,880, a gain of 4 p.c. in quantity over 1945, but a decline of 1 p.c. in value because of the return in mid-year of the Canadian dollar to parity with that of the United States. Coal production was up 7 p.c. in tonnage and 10 p.c. in value, but the quantities of natural gas and of crude petroleum were slightly lower than the corresponding 1945 figures. All structural materials except lime showed substantial increases over 1945, the volume of cement being higher by more than 34 p.c., sand and gravel 22 p.c., and stone 10 p.c. Brick and other clay products advanced 37 p.c. in value.

2.—Quantities and Values of Minerals Produced, 1943-45

Mineral	1943		1944		1945	
	Quantity	Value	Quantity	Value	Quantity	Value
Metallics		$		$		$
Antimony lb.	1,114,166	189,408	1,937,933	281,000	1,667,951	290,557
Arsenic (As_2O_3) “	3,153,538	254,009	2,627,022	180,866	2,045,730	130,909
Bismuth “	407,597	562,484	123,875	154,844	189,815	260,047
Cadmium “	786,611	904,602	526,970	579,667	646,064	639,603
Calcium “	Nil	–	Nil	–	22,720	19,312
Chromite ton	29,595	919,878	27,054	748,494	5,755	160,752
Cobalt lb.	175,961	191,407	36,283	34,106	109,123	90,026
Copper “	575,190,132	67,170,601	547,070,118	65,257,172	474,914,052	59,322,261
Gold fine oz.	3,651,301	140,575,088[1]	2,922,911	112,532,073[1]	2,696,727	103,823,990[1]
Iron ore ton	641,294	2,032,240	553,252	1,909,608	1,135,444	3,635,095
Lead lb.	444,060,769	16,670,041	304,582,198	13,706,199	346,994,472	17,349,723
Magnesium “	7,153,974	2,074,652	10,579,778	2,575,695	7,358,545	1,607,264
Manganese ore ton	48	985	Nil	–	Nil	–
Mercury lb.	1,690,240	4,559,200	735,908	1,210,375	“	–
Molybdenite concentrates “	784,715	549,515	2,127,508	1,079,698	978,117	411,663
Nickel “	288,018,615	71,675,322	274,598,629	69,204,152	245,130,983	61,982,133
Palladium, rhodium, iridium, etc. fine oz.	126,004	5,233,068	42,929	1,960,085	458,674	18,671,074
Platinum “	219,713	8,458,951	157,523	6,064,635	208,234	8,017,010
Pitchblende products	[2]	[3]	[2]	[3]	[2]	[3]
Selenium lb.	374,013	654,523	298,592	537,466	379,187	728,039
Silver fine oz.	17,344,569	7,849,111	13,627,109	5,859,656	12,942,906	6,083,166
Tellurium lb.	8,600	15,050	10,661	18,657	484	929
Thallium “	Nil	–	128	1,690	Nil	–
Tin “	776,937	450,623	516,626	299,643	849,983	492,990
Titanium ore ton	69,437	308,290	33,973	165,195	14,147	67,575
Tungsten concentrates lb.	1,508,621	1,083,538	886,745	245,780	1,153	1,045
Zinc “	610,754,354	24,430,174	550,823,353	23,685,405	517,213,604	33,308,556
Totals, Metallics	–	**356,812,760**	–	**308,292,161**	–	**317,093,719**
Fuels						
Coal ton	17,859,057	62,877,549	17,026,499	70,433,169	16,506,713	67,588,402
Natural gas M cu. ft.	44,276,216	13,159,418	45,067,158	11,422,541	48,411,585	12,309,564
Peat ton	782	7,000	644	5,397	118	1,062
Petroleum, crude bbl.	10,052,302	16,470,417	10,099,404	15,429,900	8,482,796	13,632,248
Totals, Fuels	–	**92,514,384**	–	**97,291,007**	–	**93,531,276**
Non-Metallics (Excluding Fuels)						
Asbestos ton	467,196	23,169,505	419,265	20,619,516	466,897	22,805,157
Barite “	24,474	279,253	118,719	1,023,696	139,589	1,211,403
Corundum “	Nil	–	173	17,111	1,317	130,393
Diatomite “	98	3,331	13	437	46	1,238
Feldspar “	23,858	237,771	23,509	227,632	30,246	282,656
Fluorspar “	11,210	318,424	6,924	217,701	7,369	233,708
Garnets (schist) “	Nil	–	3	90	Nil	–
Graphite “	1,903	197,431	1,582	171,166	1,910	179,001
Grindstones (including pulpstones) “	164	6,225	225	12,000	225	10,870
Gypsum “	446,848	1,381,468	596,164	1,511,978	839,731	1,783,290
Iron oxides (ochre) “	8,401	135,893	8,599	150,250	10,314	172,053
Magnesitic dolomite	[2]	1,260,056[4]	[2]	1,139,281[4]	[2]	1,278,596[4]
Mica lb.	8,050,692	553,856	6,684,846	841,026	7,044,221	233,270
Mineral waters imp. gal.	139,611	67,541	156,150	79,031	244,761	126,499
Nepheline syenite ton	[2]	292,010	[2]	217,989	61,345	275,766

For footnotes, see end of table, p. 446.

2.—Quantities and Values of Minerals Produced, 1943-45—concluded

Mineral	1943		1944		1945	
	Quantity	Value	Quantity	Value	Quantity	Value
		$		$		$
Non-Metallics (Excluding Fuels)—conc.						
Peat moss............ ton	64,360	1,461,422	80,446	1,869,553	83,963	2,011,139
Phosphate............ "	1,451	18,385	482	6,716	299	4,356
Quartz............... "	1,776,749	1,608,448	1,740,262	1,658,409	1,513,628	1,535,458
Salt.................. "	687,686	4,379,378	695,217	4,074,021	673,076	4,054,720
Silica brick........... M	4,165	295,505	3,997	312,092	4,208	317,263
Soapstone............ ton	14,204[5]	135,469[5]	19,013[5]	204,127[5]	14,225[5]	153,694[5]
Sodium carbonate.... "	468	5,148	44	484	286	3,146
Sodium sulphate...... "	107,121	1,025,151	102,421	987,842	93,068	884,322
Sulphur[6].............. "	257,515	1,753,425	248,088	1,755,739	250,114	1,881,321
Talc.................. "	11,959	131,216	13,584	153,122	12,863	141,194
Volcanic dust......... "	50	257	Nil	-	Nil	-
Totals, Non-Metallics......	-	**38,716,568**	-	**37,251,009**	-	**39,710,513**
Clay Products and Other Structural Materials						
CLAY PRODUCTS						
Brick—						
Soft Mud Process—						
Face.............. M	9,260	206,826	7,917	177,659	5,424	128,762
Common.......... M	14,195	209,508	14,182	214,336	21,516	378,884
Stiff Mud Process (wire cut)—						
Face.............. M	34,623	867,630	55,175	1,360,083	76,094	2,074,833
Common.......... M	51,000	829,365	44,451	742,437	51,413	940,266
Dry Press—						
Face.............. M	10,504	256,362	13,990	337,715	25,680	636,721
Common.......... M	15,680	243,446	18,809	317,893	19,993	400,091
Fancy or ornamental brick............. M	3,190	191,424	28	866	81	5,806
Sewer brick......... M	225	4,203	233	4,391	41	816
Paving brick........ M	151	8,967	321	18,793	206	12,010
Firebrick............ M	3,644	192,618	3,180	164,837	3,466	186,651
Fireclay and other clay ton	26,384	144,689	26,855	136,793	22,954	65,107
Bentonite............. "	[3]	117,047	[3]	163,848	[3]	170,799
Fireclay blocks and shapes..	-	256,655	-	221,251	-	225,275
Hollow blocks......... ton	84,469	819,535	87,820	811,558	94,244	998,210
Roofing tile................	-	827	Nil	-	Nil	-
Floor tile (quarries)........	-	26,949	-	43,817	"	46,365
Drain tile............. M	13,001	390,377	13,684	425,725	13,393	495,875
Sewer pipe, copings, flue linings, etc...............	-	1,116,846	-	964,732	-	1,178,141
Pottery, glazed or unglazed.	-	701,144	-	838,544	-	930,567
Other clay products.........	-	23,775	-	52,147	-	37,913
TOTALS, CLAY PRODUCTS....	-	6,608,193	-	6,997,425	-	8,913,092
OTHER STRUCTURAL MATERIALS						
Cement............... bbl.	7,302,289	11,599,033	7,190,851	11,621,372	8,471,679	14,246,480
Lime[7]................ ton	907,768	6,832,992	885,142	6,926,844	832,253	6,525,038
Sand and gravel...... "	25,744,469	9,005,857	28,399,986	10,280,119	29,750,703	10,568,363
Stone—						
Granite............ "	780,422	1,522,072	269,964	1,303,790	221,630	1,284,748
Limestone[7]......... "	6,265,181	6,105,749	5,565,286	5,528,459	5,677,192	6,284,379
Marble............. "	11,848	68,022	11,829	85,374	13,388	113,337
Sandstone.......... "	164,163	250,603	146,766	223,453	291,430	466,397
Slate............... "	1,336	17,733	1,147	18,101	1,915	17,839
TOTALS, OTHER STRUCTURAL MATERIALS................	-	35,402,061	-	35,987,512	-	39,506,581
Totals, Clay Products and Other Structural Materials..................	-	**42,010,254**	-	**42,984,937**	-	**48,419,673**
Grand Totals (Canadian Funds)..................	-	**530,053,966**	-	**485,819,114**	-	**498,755,181**

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[1] Value in Canadian funds. [2] Not available. [3] Not available for publication. [4] Including brucite. [5] Includes some talc. [6] Sulphur content of pyrites shipped and estimated sulphur contained in the sulphuric acid made from smelter gases. [7] Includes relatively large quantities used in the manufacture of chemicals.

Analysis of Current Value and Volume.—In order to interpret more clearly and simply the trends in mineral production in Canada over the past ten years, Table 3 gives the percentage of the total value contributed by each principal mineral in each year. Values upon which percentages in this table are based are the annual values of mineral production expressed in Canadian currency as published in Tables 1 and 2.

3.—Percentages of the Total Value of Mineral Production, by Principal Minerals, 1936-45

Mineral	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
METALLICS	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Cobalt	0·2	0·2	0·2	0·2	0·2	0·1	0·2	[1]	[1]	[1]
Copper	10·9	15·1	12·8	12·8	12·4	11·5	10·7	12·7	13·4	11·9
Gold	36·3	31·3	37·6	38·8	38·6	36·7	32·9	26·5	23·2	20·8
Lead	4·1	4·6	3·1	2·6	3·0	2·8	3·0	3·1	2·8	3·5
Nickel	12·1	13·0	12·2	10·7	11·3	12·3	12·4	13·5	14·2	12·4
Pitchblende products	[2]	[2]	[2]	0·2	0·1	0·2	[3]	[3]	[3]	[3]
Platinum metals	2·2	2·2	2·0	2·0	1·5	1·5	3·4	2·6	1·7	5·4
Silver	2·3	2·3	2·2	2·0	1·7	1·5	1·5	1·5	1·2	1·2
Zinc	3·1	4·0	2·7	2·6	2·7	3·1	3·5	4·6	4·9	6·7
TOTALS, METALLICS[4]	71·7	73·1	73·1	72·4	72·2	70·6	69·2	67·3	63·5	63·6
FUELS										
Coal	12·7	10·7	10·0	10·2	10·3	10·4	11·1	11·9	14·5	13·5
Natural gas	3·0	2·5	2·6	2·6	2·5	2·2	2·4	2·5	2·3	2·5
Petroleum	0·9	1·2	2·1	2·1	2·1	2·6	2·8	3·1	3·2	2·7
TOTALS, FUELS	16·6	14·4	14·7	14·9	14·9	15·2	16·3	17·5	20·0	18·7
NON-METALLICS (EXCLUDING FUELS)										
Asbestos	2·8	3·2	2·9	3·3	2·9	3·8	4·0	4·4	4·2	4·6
Gypsum	0·4	0·3	0·3	0·4	0·4	0·4	0·2	0·3	0·3	0·4
Quartz	0·2	0·2	0·2	0·2	0·2	0·2	0·3	0·3	0·3	0·3
Salt	0·5	0·4	0·4	0·5	0·5	0·6	0·7	0·8	0·8	0·8
Sulphur	0·3	0·3	0·2	0·4	0·2	0·3	0·4	0·3	0·4	0·4
TOTALS, NON-METALLICS[4]	4·6	4·9	4·5	5·3	4·9	6·1	6·5	7·3	7·7	8·0
TOTALS, CLAY PRODUCTS	1·0	1·0	1·0	1·1	1·2	1·4	1·2	1·2	1·4	1·8
OTHER STRUCTURAL MATERIALS										
Cement	1·9	2·0	1·9	1·8	2·2	2·3	2·5	2·2	2·4	2·9
Lime	0·9	0·8	0·8	0·8	1·0	1·1	1·2	1·3	1·4	1·3
Sand and gravel	1·9	2·3	2·7	2·4	2·2	1·9	1·6	1·7	2·1	2·1
Stone	1·4	1·5	1·3	1·3	1·4	1·4	1·5	1·5	1·5	1·6
TOTALS, OTHER STRUCTURAL MATERIALS	6·1	6·6	6·7	6·3	6·8	6·7	6·8	6·7	7·4	7·9
Grand Totals	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**	**100·0**

[1] Less than one-tenth of one per cent. [2] Not available. [3] Not available for publication.
[4] Includes minor items not specified.

Although the year 1926 was not a normal year in mineral production to the same extent as in some other productive fields, the rapid changes that have resulted from circumstances arising since then can be seen more clearly by using 1926 as a base year. Table 4 shows the indexes of volume of mineral production by principal minerals, for the years 1936-45. The very large increases in the production of petroleum and platinum metals are especially noteworthy.

4.—Indexes of Volume of Mineral Production, by Principal Minerals, 1936-45

(1926=100)

Note.—Indexes for 1927–35 will be found at p. 319 of the 1940 Year Book.

Mineral	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
METALLICS										
Cobalt	133·5	76·3	69·1	110·2	119·5	39·6	12·6	26·5	5·5	16·4
Copper	316·3	398·2	429·2	457·4	492·6	483·4	453·6	432·2	411·0	356·8
Gold	213·7	233·5	269·4	290·4	302·8	304·7	276·0	208·1	166·6	153·7
Lead	135·0	145·2	147·6	136·9	166·3	162·1	180·5	156·5	107·3	122·3
Nickel	258·3	342·2	320·4	344·1	373·7	429·5	434·0	43·8	417·9	373·0
Platinum metals	1381·9	1463·9	1694·4	1454·6	1023·3	1134·6	2598·1	1768·8	1025·6	3412·2
Silver	82·0	102·7	99·3	103·5	106·5	97·2	92·5	77·5	60·9	57·9
Zinc	222·2	247·0	254·4	263·1	282·8	341·7	387·0	407·3	367·4	345·0
FUELS										
Coal	92·4	96·1	86·7	94·3	106·6	110·6	114·5	108·4	103·3	94·1
Natural gas	146·4	168·6	174·1	183·2	214·7	226·4	237·9	230·5	234·6	252·0
Petroleum	411·7	807·7	1911·4	2147·5	2357·3	2780·6	2844·0	2758·3	2771·2	2327·6
NON-METALLICS (EXCLUDING FUELS)										
Asbestos	107·8	146·8	103·7	130·4	124·1	171·0	157·3	167·2	150·1	167·1
Gypsum	94·4	118·5	114·2	160·9	163·9	180·3	64·1	50·6	67·5	95·0
Quartz[1]	451·0	593·5	594·6	682·1	800·7	884·5	748·9	765·6	749·8	652·2
Salt	149·0	174·8	167·6	161·7	177·0	213·6	249·0	261·9	264·8	256·4
Sulphur[2]	316·5	339·2	291·3	547·5	442·2	673·8	787·0	667·3	642·9	648·1
STRUCTURAL MATERIALS[3]										
Cement	51·8	70·9	63·4	65·8	86·8	96·1	104·8	83·9	82·6	97·3
Lime	113·2	132·7	117·6	133·4	173·2	208·0	213·8	219·3	213·9	201·1
Sand and gravel	129·3	157·8	188·3	182·9	183·3	184·7	154·0	150·4	166·0	173·9
Stone	77·9	108·4	80·0	85·1	116·4	124·1	124·7	112·9	93·7	97·0

[1] Beginning with 1936, low-grade natural silica sand used as non-ferrous smelter flux is included.
[2] 1928=100, previous years not being comparable.
[3] Excluding clay products.

Subsection 2.—Provincial Distribution of Mineral Production

Since 1907, Ontario has been the principal mineral-producing province of Canada. In 1940, Ontario's production was 49·4 p.c. of the total but it has declined steadily to 38·2 p.c. in 1946. The rise in the price of gold has been especially favourable to Ontario's mineral production, while the Sudbury nickel-copper deposits are another outstanding feature in the mineral resources of the Province. For many years British Columbia, where most of the important metals are found and substantial quantities of coal exist, was in second place, but for the past nine years Quebec has held that position. A great part of Quebec's mineral production is made up of gold, copper and asbestos. Nova Scotia and Alberta are the most important coal-producing provinces. The discovery and development of the Flin Flon and Sherritt-Gordon orebodies resulted in the Provinces of Manitoba and Saskatchewan becoming important producers of base metals, gold and silver. Alberta, besides being a big producer of coal, is the most important province for the production of petroleum and natural gas.

5.—Mineral Production, by Provinces, 1936-46

NOTE.—Figures for the years 1899-1910, inclusive, will be found at p. 345 of the 1933 Year Book; for 1911-28 at p. 323 of the 1939 edition; and for 1929-35 at p. 323 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	$	$	$	$	$	$	$	$	$
1936..	26,672,278	2,587,891	49,736,919	184,532,892	11,315,527	6,970,397	23,305,726	54,407,036	2,390,706
1937..	30,314,188	2,763,643	65,160,215	230,042,517	15,751,645	10,271,463	25,597,117	73,555,798	3,902,506
1938..	26,253,645	3,802,565	68,965,594	219,801,994	17,173,002	7,782,847	28,966,272	64,549,130	4,528,188
1939..	30,746,200	3,949,433	77,335,998	232,519,948	17,137,930	8,794,090	30,691,617	65,216,745	8,210,098
1940..	33,318,587	3,435,916	86,313,491	261,483,349	17,828,522	11,505,858	35,092,337	74,134,485	6,712,490
1941..	32,569,867	3,690,375	99,651,044	267,435,727	16,689,867	15,020,555	41,364,385	78,841,180	6,978,290
1942..	32,783,165	3,609,158	104,300,010	259,114,946	14,345,046	20,578,749	47,359,831	77,247,932	7,429,835
1943..	29,979,837	3,676,834	101,610,678	232,948,959	13,412,266	26,735,984	48,941,210	68,442,386	4,305,812
1944..	33,981,977	4,133,902	90,182,553	210,706,307	13,830,406	22,291,848	51,066,662	57,246,071	2,379,388
1945..	32,220,659	4,182,100	91,518,120	216,541,856	14,429,423	22,336,074	51,753,237	64,063,842	1,709,870
1946[1]..	35,391,301	4,409,064	89,733,358	188,878,977	16,676,276	24,019,999	58,432,386	73,545,982	2,753,085

[1] Subject to revision.

Table **6** shows the different minerals that made up the mineral production of each province and also the particular province or provinces that contributed to the production of each mineral in Canada in 1945.

6.—Detailed Mineral Production, by Provinces, 1945

NOTE.—Quantities and values of minerals produced during 1945 in Yukon were—gold, 31,721 fine oz., $1,221,258; silver, 25,158 fine oz., $11,824; lead, 119,516 lb., $5,976; total, $1,239,058: and in the Northwest Territories—gold, 8,655 fine oz., $333,218; silver, 2,033 fine oz., $956; natural gas, 1,500 M cu. ft., $335; petroleum, 345,171 bbl., $136,303; total, $470,812. Data for pitchblende products found in these areas are not available for publication. For the Dominion totals of individual minerals, see Table 2. Dashes in this table indicate that no production was recorded. The ton referred to is the short ton of 2,000 lb.

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Metallics								
Antimony......lb.	–	–	–	–	–	–	–	1,667,951
$	–	–	–	–	–	–	–	290,557
Arsenic (As_2O_3).lb.	–	–	1,821,263	224,467	–	–	–	–
$	–	–	118,557	12,352	–	–	–	–
Bismuth.......lb.	–	–	–	–	–	–	–	189,815
$	–	–	–	–	–	–	–	260,047
Cadmium......lb.	–	–	–	–	27,891	107,741	–	510,432
$	–	–	–	–	27,612	106,663	–	505,328
Calcium........lb.	–	–	–	22,720	–	–	–	–
$	–	–	–	19,312	–	–	–	–
Chromite......ton	–	–	5,755	–	–	–	–	–
$	–	–	160,752	–	–	–	–	–
Cobalt.........lb.	–	–	–	109,123	–	–	–	–
$	–	–	–	90,026	–	–	–	–
Copper.........lb.	–	–	102,685,069	239,450,875	41,126,155	65,900,701	–	25,751,252
$	–	–	12,886,976	29,771,633	5,161,332	8,270,538	–	3,231,782
Gold[1]......fine oz.	3,291	–	661,608	1,625,368	70,655	108,568	7	186,854
$	126,704	–	25,471,908	62,576,668	2,720,218	4,179,868	269	7,193,879
Iron ore........ton	–	–	–	1,135,444	–	–	–	–
$	–	–	–	3,635,095	–	–	–	–
Lead...........lb.	–	–	9,229,726	668,762	–	–	–	336,976,468
$	–	–	461,486	33,438	–	–	–	16,848,823
Magnesium.....lb.	–	–	–	7,358,545	–	–	–	–
$	–	–	–	1,607,264	–	–	–	–
Molybdenite lb.	–	–	978,117	–	–	–	–	–
concentrates. $	–	–	411,663	–	–	–	–	–
Nickel.........lb.	–	–	–	245,130,983	–	–	–	–
$	–	–	–	61,982,133	–	–	–	–
Palladium, rhodium, iridium, etc........fine oz.	–	–	–	458,674	–	–	–	
$	–	–	–	18,671,074	–	–	–	

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[1] Value in Canadian funds.

6.—Detailed Mineral Production, by Provinces, 1945—continued

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Metallics—conc.								
Platinum...fine oz.	–	–	–	208,234	–	–	–	–
$	–	–	–	8,017,010	–	–	–	–
Selenium.......lb.	–	–	160,720	168,000	9,258	41,209	–	–
$	–	–	308,583	322,560	17,775	79,121	–	–
Silver......fine oz.	112	–	2,149,570	3,185,369	533,883	1,426,457	1	5,620,323
$	53	–	1,010,298	1.497,123	250,925	670,435	–	2,641,552
Tellurium......lb.	–	–	–	–	89	395	–	–
$	–	–	–	–	171	758	–	–
Tin............lb.	–	–	–	–	–	–	–	849,983
$	–	–	–	–	–	–	–	492,990
Titanium ore...ton	–	–	14,147	–	–	–	–	–
$	–	–	67,575	–	–	–	–	–
Tungsten lb.	–	–	–	787	–	–	–	366
concentrates. $	–	–	–	714	–	–	–	331
Zinc...........lb.	–	–	111,909,565	237,799	34.860,754	75,413,851	–	294,791,635
$	–	–	7,206,976	15,314	2,245,033	4,856,652	–	18,984,581
Totals, Metallics...... $	**126,757**	–	**48,104,774**	**188,251,716**	**10,423,066**	**18,164,035**	**269**	**50,449,870**
Fuels								
Coal...........ton	5,112,615	361,184	–	–	–	1,532,995	7,800,151	1,699,768
$	28,350,278	2,021,806	–	–	–	2,327,082	27,751,377	7,137,859
Natural M cu. ft.	–	653,230	–	7,199,970	–	163,824	40,393,061	–
gas. $	–	317,568	–	4,837,586	–	58,165	7,095,910	–
Peat...........ton	–	–	–	118	–	–	–	–
$	–	–	–	1,062	–	–	–	–
Petroleum, bbl.	–	30,140	–	113,325	–	14,374	7,979,786	–
crude. $	–	42,413	–	268,478	–	15,362	13,169.692	–
Totals, Fuels.. $	**28,350,278**	**2,381,787**	-	**5,107,126**	–	**2,400,609**	**48,016,979**	**7,137,859**
Non-Metallics (Excluding Fuels)								
Asbestos.......ton	–	–	466,894	3	–	–	–	–
$	–	–	22,802,511	2,646	–	–	–	–
Barite..........ton	108,434	–	–	–	–	–	–	31,155
$	1,165,623	–	–	–	–	–	–	45,780
Corundum.....ton	–	–	–	1,317	–	–	–	–
$	–	–	–	130,393	–	–	–	–
Diatomite.....ton	24	–	–	–	–	–	–	22
$	740	–	–	–	–	–	–	498
Feldspar.......ton	–	–	26,389	3,857	–	–	–	–
$	–	–	247,242	35,414	–	–	–	–
Fluorspar......ton	–	–	–	7,369	–	–	–	–
$	–	–	–	233,708	–	–	–	–
Graphite.......ton	–	–	–	1,910	–	–	–	–
$	–	–	–	179,001	–	–	–	–
Grindstones (incl. pulpstones)....ton	10	215	–	–	–	–	–	–
$	600	10,270	–	–	–	–	–	–
Gypsum.......ton	634,960	46,755	–	92,174	42,275	–	–	23,617
$	790,273	236,833	–	385,516	300,636	–	–	70,032
Iron oxides ton	–	–	9,917	–	–	–	–	397
(ochre). $	–	–	170,068	–	–	–	–	1,985
Magnesitic dolomite and brucite $	–	–	1,278,596	–	–	–	–	–
Mica...........lb.	–	–	2,856,858	2,903,363	–	–	–	1,284,000
$	–	–	121,011	95,123	–	–	–	17,136
Mineral imp. gal.	–	–	236,476	8,285	–	–	–	–
waters. $	–	–	125.523	976	–	–	–	–
Nepheline- ton	–	–	–	61,345	–	–	–	–
syenite. $	–	–	–	275,766	–	–	–	–
Peat moss......lb.	–	4,000,000	37,034,000	23,334,635	2,362,825	–	–	101,194,547
$	–	64,000	387,499	224,100	43,243	–	–	1,292,297
Phosphate.....ton	–	–	291	8	–	–	–	–
$	–	–	4,236	120	–	–	–	–
Quartz.........ton	10,734	–	195,857	1,165,238	–	141,799	–	–
$	36,171	–	626,079	820,664	–	52,544	–	–

6.—Detailed Mineral Production, by Provinces, 1945—continued

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Non-Metallics (Excluding Fuels)—concluded								
Salt............ton	37,825	–	–	578,697	27,133	–	29,421	–
$	254,138	–	–	2,920,973	449,561	–	430,048	–
Silica brick.... M	3,040	–	–	1,168	–	–	–	–
$	185,865	–	–	131,398	–	–	–	–
Soapstone[1].....ton	–	–	14,225	–	–	–	–	–
$	–	–	153,694	–	–	–	–	–
Sodium carbonate. ton	–	–	–	–	–	–	–	286
$	–	–	–	–	–	–	–	3,146
Sodium sulphate. ton	–	–	–	–	–	93,068	–	–
$	–	–	–	–	–	884,322	–	–
Sulphur........ton	–	–	105,613	16,847	–	–	–	127,654
$	–	–	445,534	168,470	–	–	–	1,267,317
Talc...........ton	–	–	–	12,863	–	–	–	–
$	–	–	–	141,194	–	–	–	–
Totals, Non-Metallics...... $	**2,433,410**	**311,103**	**26,361,993**	**5,745,462**	**793,440**	**936,866**	**430,048**	**2,698,191**
Clay Products and Other Structural Materials								
Clay Products								
Clay—								
Bentonite..... $	–	–	–	–	169,551	–	1,248	–
Fireclay......ton	2,455	–	–	8	–	1,170	–	633
$	9,313	–	–	209	–	11,689	–	10,205
Kaolin........ton	–	–	446	–	–	–	–	–
$	–	–	3,771	–	–	–	–	–
Other clay....ton	–	–	–	295	–	17,947	–	–
$	–	–	–	1,009	–	28,911	–	–
Brick—Soft Mud Process—								
Face.......... M	–	–	–	5,424	–	–	–	–
$	–	–	–	128,762	–	–	–	–
Common...... M	–	2,109	2,600	5,413	1,970	240	7,892	1,292
$	–	44,134	41,066	110,373	38,515	4,785	98,555	41,456
Brick—Stiff Mud Process—(wire cut)								
Face.......... M	30	–	28,933	44,689	1,702	85	77	578
$	690	–	767,837	1,229,670	51,051	3,101	2,209	20,275
Common...... M	6,797	5,787	33,475	4,252	540	350	–	211
$	109,375	121,970	608,359	78,613	10,800	4,800	–	6,349
Dry Press—								
Face......... M	–	–	2,784	13,673	–	78	8,615	531
$	–	–	84,409	372,984	–	3,134	153,003	23,191
Common..... M	–	–	14,527	872	–	–	2,794	1,800
$	–	–	305,067	17,341	–	–	38,583	39,100
Fancy or ornamental brick. M	–	–	–	81	–	–	–	–
$	–	–	–	5,806	–	–	–	–
Firebrick..... M	8	–	–	8	–	–	–	3,450
$	310	–	–	400	–	–	–	185,941
Sewer brick... M	–	–	–	41	–	–	–	–
$	–	–	–	816	–	–	–	–
Paving brick.. M	–	–	–	206	–	–	–	–
$	–	–	–	12,010	–	–	–	–
Fireclay blocks and shapes.... $	1,128	–	–	–	–	175,018	–	49,129
Structural Tile—								
Hollow blocks.ton	14,293	1,804	29,532	32,490	–	3,335	9,615	3,175
$	134,052	16,392	324,812	330,381	–	35,800	86,397	70,376
Floor tile (quarries).... $	–	–	–	46,365	–	–	–	–
Drain tile..... M	281	42	853	10,368	–	90	155	1,604
$	9,485	1,649	39,553	355,264	–	4,050	11,528	74,346

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[1] Includes some talc.

6.—Detailed Mineral Production, by Provinces, 1945—concluded

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
Clay Products and Other Structural Materials— concluded								
CLAY PRODUCTS —concluded								
Sewer pipe, copings, flue linings, etc............ $	169,102	1,846	191,655	302,895	-	-	268,829	99,595
Pottery, glazed or unglazed.... $	-	46,792	147,388	69,182	-	-	663,960	3,245
Other clay products........... $	-	-	20,713	45,109	-	-	77,563	38,747
TOTALS, CLAY PRODUCTS..... $	433,455	232,783	2,534,630	3,107,189	269,917	271,288	1,401,875	661,955
OTHER STRUCTURAL MATERIALS								
Cement.......bbl.	-	-	3,872,373	2,460,996	959,398	-	620,337	558,575
$	-	-	5,985,077	3,805,131	2,027,629	-	1,246,346	1,182,297
Lime..........ton	469	19,941	311,057	398,647	31,495	-	19,855	50,789
$	5,771	241,651	2,195,837	3,131,676	313,193	-	169,322	467,588
Sand and gravel. ton	1,308,848	1,627,371	8,971,960	10,466,891	1,497,062	1,237,595	919,736	3,721,240
$	555,809	686,267	2,279,537	4,466,862	516,380	563,276	433,436	1,066,796
Stone..........ton	123,434	99,328	2,670,161	2,952,357	62,626	-	13,528	284,121
$	315,179	328,509	4,056,272	2,926,694	85,798	-	54,962	399,286
TOTALS, OTHER STRUCTURAL MATERIALS.... $	876,759	1,256,427	14,516,723	14,330,363	2,943,000	563,276	1,904,066	3,115,967
Totals, Clay Products and Other Structural Materials..... $	**1,310,214**	**1,489,210**	**17,051,353**	**17,437,552**	**3,212,917**	**834,564**	**3,305,941**	**3,777,922**
Grand Totals.. $	**32,220,659**	**4,182,100**	**91,518,120**	**216,541,856**	**14,429,423**	**22,336,074**	**51,753,237**	**64,063,842**

Section 3.—Industrial Statistics of Mines and Minerals—Capital, Labour, Wages, etc.

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. Additional data published at irregular intervals, include such features as capital employed, numbers of employees, wages and salaries paid and net value of sales.

The figures for "net income from sales" of industries given in Tables 7 and 8 are those reported by the operators and are, in each case, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada. The totals indicate more nearly the actual returns to the different industries than do the values for the minerals in Table 2 of this Chapter where, in the cases of copper, lead, zinc and silver, the values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminum where imported ore only is used and of cobalt which now comes mainly from African ores. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and, to this extent, the net sales shown in Tables 7 and 8 include products of other than Canadian origin.

7.—Principal Statistics of the Mineral Industries, by Groups, 1936-45, and by Provinces, 1945

Group, Year and Province	Plants or Mines	Capital Employed	Employees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies[1]	Net Income from Sales
	No.	$	No.	$	$	$
METALLICS						
1936	867	507,796,987	46,455	72,016,670	188,371,440	211,444,303
1937	1,000	584,692,790	55,046	90,798,501	268,514,346	276,885,288
1938	883	583,631,536	56,491	94,466,952	260,417,691	278,367,293
1939	785	574,099,672	58,043	98,570,473	249,452,335	286,895,798
1940	772	615,918,818	60,351	105,525,343	276,988,746	329,196,007
1941	633	708,199,049	64,291	120,787,221	339,972,576	364,649,855
1942	483	768,245,462	64,185	126,886,402	400,152,674	374,526,623
1943	359	800,060,147	64,324	128,483,302	467,165,380	336,544,720
1944	418	[2]	58,486	116,427,696	409,904,049	312,982,733
1945	871	[2]	49,684	102,669,882	319,549,277	267,798 653
FUELS						
1936	6,072	220,659,487	30,045	32,628,645	8,677,204	47,354,595
1937	6,099	236,032,476	30,850	36,470,163	9,926,557	51,092,131
1938	6,223	242,324,005	30,934	33,862,014	9,150,977	52,942,261
1939	6,251	239,583,899	30,242	35,825,194	9,734,267	58,007,938
1940	6,325	237,339,509	30,364	39,627,312	10,558,580	64,679,511
1941	6,205	245,985,881	30,335	44,246,214	10,592,616	71,103,281
1942	6,238	246,242,581	30,117	48,566,913	12,277,793	76,393,437
1943	6,168	254,888,821	30,754	55,351,328	12,653,594	75,686,828
1944	6,279	[2]	29,953	63,720,867	14,156,767	78,491,468
1945	6,343	[2]	29,159	56,323,718	12,716,321	76,513,440
NON-METALLICS (EXCLUDING FUELS)						
1936	152	36,398,319	4,723	4,652,169	3,593,551	12,120,887
1937	172	37,546,148	6,294	6,729,395	5,392,536	15,950,419
1938	167	38,570,095	5,933	6,322,332	4,365,127	14,659,821
1939	199	39,148,011	6,175	6,850,352	5,170,228	18,699,491
1940	206	34,881,470	6,471	7,618,055	5,905,612	19,311,640
1941	250	39,914,807	7,370	9,087,838	7,056,368	26,285,580
1942	290	41,734,421	8,117	10,793,259	7,822,375	27,855,522
1943	257	41,654,689	7,989	11,055,861	8,410,143	30,833,183
1944	248	[2]	8,233	12,164,400	8,104,871	29,632,077
1945	203	[2]	8,318	12,712,321	8,961,846	31,379,055
CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS						
1936	6,138	94,208,302	9,776	7,468,738	4,718,167	21,052,574
1937	8,137	99,073,560	13,224	10,294,325	6,001,510	28,868,189
1938	6,857	89,722,416	13,917	10,992,702	5,432,367	28,446,299
1939	7,004	88,943,803	13,299	11,107,189	5,753,942	29,628,817
1940	6,362	88,208,231	11,700	11,718,976	8,810,378	34,893,571
1941	6,146	88,569,618	11,231	12,301,913	10,767,140	35,865,916
1942	5,886	89,123,449	9,624	12,303,686	11,658,604	35,334,369
1943	5,665	86,838,770	9,073	12,685,464	10,656,440	32,464,633
1944	6,007	[2]	8,206	12,495,351	11,219,057	32,916,190
1945	5,598	[2]	9,089	13,574,005	11,916,882	37,885,652

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[1] Includes freight and smelter charges and cost of ores treated for 1937 and subsequent years. [2] Not available.

7.—Principal Statistics of the Mineral Industries, by Groups, 1936-45, and by Provinces, 1945—concluded

Group, Year and Province	Plants or Mines	Capital Employed	Employees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies[1]	Net Income from Sales
	No.	$	No.	$	$	$
Grand Totals						
1936	**13,229**	**859,063,095**	**90,999**	**116,766,222**	**205,360,362**	**291,972,359**
1937	**15,408**	**957,344,974**	**105,414**	**144,292,384**	**289,834,949**	**372,796,027**
1938	**14,130**	**954,248,052**	**107,275**	**145,644,000**	**279,366,162**	**374,415,674**
1939	**14,239**	**941,775,385**	**107,759**	**152,353,208**	**270,110,772**	**393,232,044**
1940	**13,665**	**976,348,028**	**108,886**	**164,489,686**	**302,263,316**	**448,080,729**
1941	**13,234**	**1,082,669,355**	**113,227**	**186,423,186**	**368,388,700**	**497,904,632**
1942	**12,897**	**1,145,345,913**	**112,043**	**198,550,260**	**431,911,446**	**514,109,951**
1943	**12,449**	**1,183,442,427**	**112,140**	**207,575,955**	**498,885,557**	**475,529,364**
1944	**12,952**	[2]	**104,878**	**204,808,314**	**443,384,744**	**454,022,468**
1945	**13,015**	[2]	**96,250**	**185,279,926**	**353,144,326**	**413,576,800**
1945						
PROVINCE						
Nova Scotia	656	[2]	14,091	26,707,708	7,265,785	23,684.321
New Brunswick	427	[2]	1,525	2,200,188	480,155	3,636,205
Quebec	3,441	[2]	22,374	39,674,306	119,179,856	106,701,600
Ontario	6,379	[2]	30,634	61,414,603	153,297,060	155,367,764
Manitoba	156	[2]	1,763	3,460,480	11,294,429	10,794,127
Saskatchewan	198	[2]	2,457	5,020,119	20,969,841	19,382,105
Alberta	935	[2]	11,438	22,867,506	4,991,551	44,421,660
British Columbia	697	[2]	11,450	22,520,369	35,378,748	48,159,524
Yukon	7	[2]	173	589,075	68,751	1,177,267
Northwest Territories	120	[2]	345	825,572	218,150	252,227

[1] Includes freight and smelter charges and cost of ores treated for 1937 and subsequent years. [2] Not available.

A summary of the industrial statistics of the principal mineral industries operating in Canada in 1943, 1944 and 1945 is presented in Table 8. The difficulties imposed by the War in the way of labour shortages, lack of new equipment and essential supplies necessary for the mines, resulted in a steady drop in the gross value of production for the entire auriferous quartz mining industry. The value of recoverable metals, gold, silver, etc., which was $179,000,000 in 1941 fell to $161,000,000 in 1942, $117,000,000 in 1943, $94,000,000 in 1944 and $86,000,000 in 1945.

8.—Principal Statistics of the Mineral Industries, 1943-45

Industry and Year	Plants or Mines	Capital Employed	Employees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies[1]	Net Income from Sales
	No.	$	No.	$	$	$
Metallics						
Alluvial gold 1943	43	11,372,849	237	646,283	157,758	1,892,214
1944	47	[2]	211	598,556	84,104	1,197,021
1945	38	[2]	234	692,683	80,748	1,546,005
Auriferous quartz 1943	156	212,675,979	19,038	40,665,283	21,236,137	95,597,710
1944	262	[2]	17,226	37,023,505	19,029,032	75,234,384
1945	716	[2]	18,388	37,690,177	18,242,253	67,577,062

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[1] Includes freight and smelter charges and cost of ores treated. [2] Not available.

8.—Principal Statistics of the Mineral Industries, 1943-45—continued

Industry and Year	Plants or Mines	Capital Employed	Employees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies[1]	Net Income from Sales
	No.	$	No.	$	$	$
Metallics—concluded						
Copper-gold-silver.... 1943	22	94,750,186	5,748	11,806,827	29,695,643	43,840,679
1944	26	[2]	5,175	10,710,071	24,191,776	38,198,039
1945	41	[2]	4,658	9,663,612	21,134,603	38,165,269
Silver-cobalt......... 1943	21	587,039	221	290,654	142,312	578,861
1944	11	[2]	165	260,575	99,600	323,260
1945	8	[2]	166	247,203	69,967	82,508
Silver-lead-zinc...... 1943	32	20,603,191	3,097	6,423,724	5,140,238	21,932,644
1944	20	[2]	2,769	5,810,290	4,489,198	16,802,759
1945	20	[2]	2,485	5,473,582	3,934,261	23,167,203
Nickel-copper........ 1943	10	52,250,437	7,270	15,863,646	8,896,063	54,324,097
1944	9	[2]	7,628	14,678,695	9,048,726	54,621,089
1945	8	[2]	5,997	13,008,156	7,790,226	45,605,169
Miscellaneous metals.. 1943	59	15,603,307	1,964	4,295,153	2,540,873	6,521,495
1944	27	[2]	1,385	2,809,013	2,057,850	3,303,143
1945	23	[2]	985	2,041,349	2,519,571	1,756,559
Smelting and refining. 1943	16	392,217,159	26,749	48,491,732	399,356,356	111,857,020
1944	16	[2]	23,927	44,536,991	350,903,763	123,303,038
1945	17	[2]	16,771	33,853,120	265,777,648	89,898,878
Totals, Metallics..... 1943	**359**	**800,060,147**	**64,324**	**128,483,302**	**467,165,380**	**336,544,720**
1944	**418**	[2]	**58,486**	**116,427,696**	**409,904,049**	**312,982,733**
1945	**871**	[2]	**49,684**	**102,669,882**	**319,549,277**	**267,798,653**
Fuels						
Coal.................. 1943	413	111,867,036	26,473	47,291,919	11,551,496	48,329,450
1944	394	[2]	25,596	55,020,537	12,712,820	54,344,700
1945	373	[2]	25,301	49,431,965	11,604,450	52,642,796
Natural Gas.......... 1943	3,558	83,963,163	1,882	2,846,514	189,740	11,362,956
1944	3,621	[2]	1,810	2,885,654	201,152	9,571,205
1945	3,748	[2]	1,890	2,993,091	245,812	10,614,782
Petroleum............ 1943	2,197	59,058,622	2,399	5,212,895	912,358	15,994,422
1944	2,264	[2]	2,547	5,814,676	1,242,795	14,575,563
1945	2,222	[2]	1,968	3,898,662	866,059	13,255,862
Totals, Fuels........ 1943	**6,168**	**254,888,821**	**30,754**	**55,351,328**	**12,653,594**	**75,686,828**
1944	**6,279**	[2]	**29,953**	**63,720,867**	**14,156,767**	**78,491,468**
1945	6,343	[2]	**29,159**	**56,323,718**	**12,716,321**	**76,513,440**
Non-Metallics (Excluding Fuels)						
Asbestos............. 1943	10	20,831,427	3,844	5,576,734	4,509,876	19,899,540
1944	10	[2]	4,050	6,401,185	4,016,059	17,820,317
1945	12	[2]	4,237	6,679,885	4,235,725	19,857,074
Feldspar, quartz and nepheline-syenite... 1943	37	2,895,131	535	768,199	456,852	1,681,377
1944	42	[2]	529	772,385	467,937	1,636,093
1945	31	[2]	483	767,517	467,290	1,626,590
Gypsum............. 1943	12	5,147,424	438	617,780	248,043	1,133,425
1944	14	[2]	328	490,872	387,941	1,124,037
1945	13	[2]	434	647,287	575,645	1,207,645
Iron oxides........... 1943	5	254,891	47	46,554	27,028	108,865
1944	6	[2]	55	49,876	37,485	112,765
1945	5	[2]	51	58,011	35,401	136,652
Mica................. 1943	78	458,402	430	357,992	54,395	499,461
1944	70	[2]	400	359,797	56,624	784,402
1945	40	[2]	174	190,138	50,492	182,778

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[1] Includes freight and smelter charges and cost of ores treated. [2] Not available.

8.—Principal Statistics of the Mineral Industries, 1943-45—concluded

Industry and Year	Plants or Mines	Capital Employed	Employees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies[1]	Net Income from Sales
	No.	$	No.	$	$	$
Non-Metallics (Excluding Fuels)—conc.						
Peat (moss and fuel)..1943	44	2,477,287	1,012	1,000,348	307,674	1,384,770
1944	39	[2]	1,183	1,154,009	383,376	1,780,000
1945	37	[2]	1,233	1,304,249	516,104	1,874,202
Salt..................1943	9	5,490,594	682	1,223,009	1,539,774	3,648,854
1944	9	[2]	710	1,302,143	1,498,424	3,287,660
1945	9	[2]	724	1,329,384	1,623,241	3,241,456
Talc and soapstone....1943	8	576,691	90	101,719	58,031	208,654
1944	6	[2]	113	133,883	68,165	289,084
1945	5	[2]	103	134,782	79,582	215,306
Miscellaneous[3]........1943	54	3,522,842	911	1,363,526	1,208,470	2,268,237
1944	52	[2]	865	1,500,250	1,188,860	2,797,719
1945	51	[2]	879	1,601,068	1,378,366	3,037,452
Totals, Non-Metallics...........1943	**257**	**41,654,689**	**7,989**	**11,055,861**	**8,410,143**	**30,833,183**
1944	**248**	[2]	**8,233**	**12,164,400**	**8,104,871**	**29,632,077**
1945	**203**	[2]	**8,318**	**12,712,321**	**8,961,846**	**31,379,955**
Clay Products, etc.						
CLAY PRODUCTS						
Brick, tile and sewer pipe..........1943	97	16,423,684	1,781	2,565,580	1,233,412	4,674,246
1944	102	[2]	1,889	2,819,912	1,451,686	4,711,125
1945	98	[2]	2,254	3,348,351	1,892,051	6,093,719
Stoneware and pottery.............1943	8	739,063	392	344,261	28,395	672,140
1944	8	[2]	358	356,892	66,816	767,798
1945	8	[2]	434	479,855	82,632	844,690
TOTALS, CLAY PRODUCTS..........1943	105	17,162,747	2,173	2,909,841	1,261,807	5,346,386
1944	110	[2]	2,247	3,176,804	1,518,502	5,478,923
1945	106	[2]	2,688	3,828,206	1,974,683	6,938.409
OTHER STRUCTURAL MATERIALS						
Cement.............1943	8	50,438,932	1,209	2,154,218	5,557,089	7,152,763
1944	8	[2]	1,207	2,254,775	5,764,387	6,882,354
1945	8	[2]	1,317	2,398,117	6,005,605	9,416,426
Lime................1943	45	4,607,651	898	1,408,393	1,924,482	4,908,510
1944	42	[2]	815	1,414,426	2,046,550	5,005,235
1945	44	[2]	856	1,473,829	2,068,489	4,663,859
Sand and gravel......1943	5,054	3,674,501	2,320	2,683,257	379,435	8,626,422
1944	5,381	[2]	1,773	2,494,657	391,738	9,888,381
1945	5,011	[2]	2,074	2,759,206	416,390	10,151,973
Stone................1943	453	10,954,939	2,473	3,529,755	1,533,627	6,430,552
1944	466	[2]	2,164	3,154,689	1,497,880	5,661,297
1945	429	[2]	2,154	3,114,647	1,451,715	6,714,985
TOTALS, OTHER STRUCTURAL MATERIALS...1943	5,560	69,676,023	6,900	9,775,623	9,394,633	27,118,247
1944	5,897	[2]	5,959	9,318,547	9.700,555	27,437,267
1945	5,492	[2]	6,401	9,745,799	9,942,199	30,947,243
Totals, Clay Products, etc......1943	**5,665**	**86,838,770**	**9,073**	**12,685,464**	**10,656,440**	**32,464,633**
1944	**6,007**	[2]	**8,206**	**12,495,351**	**11,219,057**	**32,916,190**
1945	**5,598**	[2]	**9,089**	**13,574,005**	**11,916,882**	**37,885,652**
Grand Totals........1943	**12,449**	**1,183,442,427**	**112,140**	**207,575,955**	**498,885,557**	**475,529,364**
1944	**12,952**	[2]	**101,878**	**204,808,314**	**443,384,744**	**454,022,468**
1945	**13,015**	[2]	**96,250**	**185,279,926**	**353,144,326**	**413,576,800**

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[1] Includes freight and smelter charges and cost of ores treated. [2] Not available. [3] Includes natural abrasives.

Section 4.—Production of Metallic Minerals

The metals of chief importance in Canada are copper, gold, iron, lead, nickel, those of the platinum group, silver and zinc. These metals are dealt with individually in the following subsections. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metalliferous ores (see Tables 2 and 6).

Subsection 1.—Copper

Canada is a leading producer and exporter of copper, producing 371,085,128 lb. in 1946, including refined copper and the copper content of concentrates and matte exported. The earliest important copper-mining district in Canada was in the Eastern Townships of Quebec, but the most important copper-bearing ore deposits are now located in northwestern Quebec, the Sudbury district in Ontario, the Flin Flon area in Manitoba and Saskatchewan, and in British Columbia. Production from the Sudbury district became important about 1889 and from the mines of British Columbia about 1896. From 1899 to 1929, British Columbia was the leading copper-producing province, production coming from the Rossland and Boundary districts, the Copper Mountain mine, and the Britannia and Hidden Creek mines along the coast. Shortly after the First World War, large development programs were carried out in connection with the Noranda, Waite-Amulet and other copper-producing properties in western Quebec, the Flin Flon and Sherritt-Gordon properties in western Manitoba, and a very large expansion program at the nickel-copper properties of Sudbury. In 1946, the mines in Ontario accounted for 48 p.c. of the Dominion's copper production; Quebec was credited with 19 p.c.; Saskatchewan, 16 p.c.; Manitoba, 11 p.c.; and British Columbia, 6 p.c.

A refinery at Montreal East, Que., treats anodes from the smelter at Noranda, Que., and also the blister copper from the smelter at Flin Flon, Man. The refinery at Copper Cliff, Ont., treats the blister copper from the smelter of the International Nickel Company of Canada, Limited, at Copper Cliff. The Falconbridge Mines Limited, Falconbridge, Ont., regained possession of its refinery at Kristiansand, Norway, in May, 1945, and resumed shipments of matte to that point for treatment. The concentrates from mines in British Columbia are shipped to a United States smelter at Tacoma, Wash.

9.—Copper Produced, by Provinces, with Total Values, 1936-46

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 272 of the 1916-17 Year Book; for the years 1911-28 at p. 335 of the 1939 edition; and for 1929-35 at p. 331 of the 1946 edition.

Year	Quebec	Ontario	Manitoba	Saskat-chewan	British Columbia	Totals	
						Quantity	Value
	lb.	lb.	lb.	lb.	lb.	lb.	$
1936.....	66,340,175	287,914,078	29,853,220	14,971,609	21,169,343	421,027,732[1]	39,514,101[1]
1937.....	94,653,132	322,039,208	44,920,835	22,436,843	45,797,988	530,028,615[1]	68,917,219[1]
1938.....	112,645,797	309,030,106	65,582,772	18,156,157	65,759,265	571,249,664[1]	56,554,034[1]
1939.....	117,238,897	328,429,665	70,458,890	18,133,149	73,253,408	608,825,570[1]	60,934,859[1]
1940.....	134,166,955	347,931,013	75,267,937	20,484,954	77,742,582	655,593,441	65,773,061
1941.....	143,783,978	333,829,767	67,018,563	32,324,512	66,327,166	643,316,713[1]	64,407,497[1]
1942.....	140,911,876	308,282,414	47,595,586	56,781,466	50,015,521	603,661,826[1]	60,417,372[1]
1943.....	131,163,776	277,840,560	38,014,872	85,948,719	42,222,205	575,190,132	67,170,601
1944.....	108,055,172	285,307,278	43,878,639	73,514,499	36,302,628	547,070,118[1]	65,257,172[1]
1945.....	102,685,069	239,450,875	41,126,155	65,900,701	25,751,252	474,914,052	59,322,261
1946[2].....	70,032,553	179,333,433	40,000,000	61,000,000	20,719,142	371,085,128	47,013,560

[1] Includes 779,307 lb. valued at $73,855 produced in Nova Scotia in 1936; 180,609 lb. at $23,620 in 1937; 75,567 lb. valued at $7,535 produced in N.W.T. in 1938; 1,269,179 lb. valued at $128,086 produced in Nova Scotia and 42,382 lb. valued at $4,277 produced in N.W.T. in 1939; 32,727 lb. valued at $3,301 produced in N.W.T. in 1941; 74,963 lb. valued at $7,561 in 1942; and 11,902 lb. valued at $1,428 in 1944. [2] Subject to revision.

As copper occurs in association with precious metals and with other base metals which are normally in heavy demand, it is likely that copper production will continue at a fairly uniform rate.

Subsection 2.—Gold

Canada has been a gold-producing country for over 75 years. During the latter half of the nineteenth century production was chiefly from placer operations in British Columbia and Yukon, while during the present century there has been a rapid growth of production from lode mining both of auriferous quartz and of gold in association with other metals. Gold production in Canada attained its earlier maximum at 1,350,057 fine oz., in 1900, when the Yukon production reached its highest point. The quantities and values of gold produced in Canada are given by provinces for 1936 and subsequent years in Tables **10** and **11**.

Gold is produced in Nova Scotia, at points across the Canadian Shield from Quebec to the Northwest Territories, and in the Cordilleran Region of British Columbia and Yukon. Except for comparatively small amounts obtained from alluvial workings in Yukon, British Columbia, Saskatchewan and Alberta, the production is derived from lode mining either of auriferous quartz or of other metallic ores such as copper, nickel and zinc that carry varying amounts of gold. The principal producing districts are: western Quebec; the adjacent districts of Porcupine and Kirkland Lake in Ontario, with other smaller camps scattered across northern Ontario to the western boundary; the Rice Lake and Gods Lake areas in eastern Manitoba and the Flin Flon district on the Manitoba-Saskatchewan boundary; the Bridge River district and the Zeballos camp in British Columbia. Developments in the Yellowknife district in the Northwest Territories have resulted in several producing mines. At the present time the leading gold producer in Canada is the Hollinger mine in the Porcupine camp, the second is the Lake Shore mine in the Kirkland Lake camp, both in northern Ontario, and the third is Noranda, a copper-gold mine in western Quebec. In 1946, about 82·6 p.c. of the total production came from auriferous quartz mines; about 15·2 p.c. from mines in which gold was associated with ores of copper, nickel, zinc, etc.; and about 2·2 p.c. from alluvial operations. The auriferous quartz mining industry suffered severely from the shortage of labour and of essential supplies in the later war years; the number of producing mines decreased from 232 in 1939 to 88 in 1946 and their employees dropped from 29,001 to 17,889 during the same period.

10.—Quantities of Gold Produced, by Provinces, 1936-46

Note.—Figures for the years 1862-1910, inclusive, will be found at pp. 268-269 of the 1916-17 Year Book; for the years 1911-28 at p. 336 of the 1939 edition; and for 1929-35 at p. 332 of the 1946 edition.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Total
	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1936..	11,960	666,905	2,378,503	139,273	48,981	109	451,938	50,359[1]	3,748,028[1]
1937..	19,918	711,480	2,587,095	157,949	65,886	46	505,857	47,982	4,096,213
1938..	26,560	881,263	2,896,477	185,706	50,021	305	605,617	79,168[1]	4,725,117[1]
1939..	29,943	953,377	3,086,076	180,875	77,120	359	626,970	139,659[1]	5,094,379[1]
1940..	22,219	1,019,175	3,261,688	152,295	102,925	215	617,011	135,617[1]	5,311,145[1]
1941..	19,170	1,089,339	3,194,308	150,553	138,015	215	608,203	145,376[1]	5,345,179[1]
1942..	12,989	1,092,388	2,763,819	136,226	178,871	34	474,339	182,640[1]	4,841,306[1]
1943..	4,129	922,533	2,117,215	91,775	174,090	21	241,346	100,192[1]	3,651,301[1]
1944..	5,840	746,784	1,731,836	74,168	122,782	51	196,857	44,593[1]	2,922,911[1]
1945..	3,291	661,608	1,625,368	70,655	108,568	7	186,854	40,376[1]	2,696,727[1]
1946[2]..	4,579	586,231	1,835,887	78,732	112,000	105	123,348	66,761[1]	2,807,643[1]

[1] Includes production of the Northwest Territories amounting to 1 oz. fine in 1936; 6,800 oz. fine in 1938; 51,914 oz. fine in 1939; 55,159 oz. fine in 1940; 77,354 oz. fine in 1941; 99,394 oz. fine in 1942; 59,032 oz. fine in 1943; 20,775 oz. fine in 1944; 8,655 oz. fine in 1945; and 19,738 oz. fine in 1946.

[2] Subject to revision.

11.—Values of Gold Produced, by Provinces, 1936-46

Note.—Values are calculated at world prices in Canadian funds. Figures for the years 1862-1910, inclusive, will be found at p. 270 of the 1916-17 Year Book; for the years 1911-28 at p. 337 of the 1939 edition; and for 1929-35 at p. 332 of the 1946 edition.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Total
	$	$	$	$	$	$	$	$	$
1936..	418,959	23,361,683	83,318,960	4,878,733	1,715,804	3,818	15,831,388	1,764,076[1]	131,293,421[1]
1937..	696,931	24,894,685	90,522,454	5,526,636	2,305,351	1,610	17,699,936	1,678,890	143,326,493
1938..	934,248	30,998,426	101,883,578	6,532,209	1,759,489	10,728	21,302,578	2,784,734[1]	166,205,990[1]
1939..	1,082,170	34,455,998	111,533,873	6,537,003	2,787,194	12,974	22,659,323	5,047,416[1]	184,115,951
1940..	855,432	39,238,238	125,574,988	5,863,357	3,962,613	8,277	23,754,924	5,221,254[1]	204,479,083[1]
1941..	738,045	41,939,552	122,980,858	5,796,290	5,313,578	8,277	23,415,816	5,596,976[1]	205,789,392[1]
1942..	500,076	42,056,938	106,407,032	5,244,701	6,886,533	1,309	18,262,052	7,031,640[1]	186,390,281[1]
1943..	158,967	35,517,521	81,512,777	3,533,337	6,702,465	808	9,291,821	3,857,392[1]	140,575,088[1]
1944..	224,840	28,751,184	66,675,686	2,855,468	4,727,107	1,963	7,578,994	1,716,831[1]	112,532,073[1]
1945..	126,704	25,471,908	62,576,668	2,720,218	4,179,868	269	7,193,879	1,554,476[1]	103,823,990[1]
1946[2]..	168,278	21,543,989	67,468,847	2,893,401	4,116,000	3,859	4,533,039	2,453,467[1]	103,180,880[1]

[1] Includes value of production of the Northwest Territories amounting to $35 in 1936; $239,190 in 1938; $1,876,224 in 1939; $2,123,621 in 1940; $2,977,359 in 1941; $3,826,669 in 1942; $2,272,732 in 1943; $799,838 in 1944; $335,218 in 1945; and $725,372 in 1946. [2] Subject to revision.

Subsection 3.—Iron

Bog iron ore was first mined and smelted in the Province of Quebec early in the eighteenth century and from that time until 1883 the industry was carried on almost exclusively at Three Rivers. Other furnaces, using local ore, were operated at Radnor Forges and Drummondville, the last to shut down being the Drummondville furnace in 1911.

Deposits of iron ore in Canada are many and widespread, but because of the availability of low-cost, higher-grade ores in the Lake Superior ranges of the United States and the Wabana deposit in Newfoundland, no iron ore from domestic sources was produced in Canada from 1924 to 1939, inclusive.

In 1937 development work began at the New Helen mine of the Algoma Ore Properties Limited, in the Michipicoten area of Ontario and the first sinter was produced in July, 1939. The high-grade deposits being worked by the Steep Rock Iron Mines Limited, 135 miles west of Port Arthur, Ont., and the more recent discoveries of large deposits of iron ore in the Quebec-Labrador Boundary region have greatly raised the potentialities of Canada as a producer of iron ore. In 1946 there were 1,581,063 tons of iron ore produced, all of which came from Ontario.

12.—Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings, 1936-46

Note.—Figures for the years 1886-1910, inclusive, will be found at p. 373 of the 1936 Year Book; for the years 1911-28 at p. 340 of the 1939 edition; and for 1929-35 at p. 333 of the 1946 edition.

Year	Iron-ore Shipments from Canadian Mines	Production of Pig-Iron			Production of Ferro-Alloys	Production of Steel Ingots and Castings
		Nova Scotia	Ontario	Canada		
	short tons	short tons	short tons	short tons	short tons	short tons
1936	Nil	288,006	471,613	759,619	85,438	1,249,672
1937	"	358,756	647,961	1,006,717	91,921	1,571,227
1938	"	270,879	519,199	790,078	62,637	1,293,812
1939	123,598	290,232	556,186	846,418	85,540	1,551,054
1940	414,603	441,741	867,358	1,309,099	149,394	2,253,769
1941	516,037	421,296	1,106,757	1,528,053	204,354	2,712,151
1942	545,119	467,951	1,507,063	1,975,014	209,017	2,109,851
1943	641,294	345,722	1,412,547	1,758,269	197,094	3,004,124
1944	553,252	395,802	1,456,826	1,852,628	182,428	3,024,410
1945	1,135,444	374,302	1,403,647	1,777,949	178,214	2,877,927
1946[1]	1,581,063	317,178	1,086,580	1,403,758	116,995	2,334,631

[1] Subject to revision.

Subsection 4.—Lead

Lead has been produced in Canada since 1887, and is obtained largely from the ores of British Columbia. Bounties were paid on lead produced in Canada from 1899 to 1918 but the highest production of this period was 63,200,000 lb. in 1900. However, the successful solving by the Consolidated Mining and Smelting Company, of the metallurgical problems connected with the separation and reduction of these lead-zinc ores accounts to a considerable extent for the rapid growth in lead production during recent years.

In the East and West Kootenay districts of British Columbia there are many important mines, the principal of which is the Sullivan lead-zinc mine near Kimberley which accounts for about 95 p.c. of the total Canadian output. One of the world's largest smelters treats these ores at Trail, B.C. The lead-zinc mines in western Quebec account for most of the remainder of Canada's production, the concentrates from these properties being shipped to the United States for treatment. There was a small production in 1945 from the silver-lead-zinc ores in the Mayo district of Yukon and from northwestern Ontario. Production by provinces in 1945 is shown in Table **6**, p. 449. Table **13** gives the total quantities and values of lead produced in Canada from 1936 to 1946.

13.—Quantities and Values of Lead Produced from Canadian Ores, 1936-46

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 367 of the 1929 Year Book; for 1911-28 at p. 341 of the 1939 edition; and for 1929-35 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	lb.	$		lb.	$
1936	383,180,909	14,993,869	1942	512,142,562	17,218.233
1937	411,999,484	21,053,173	1943	444,060,769	16,670,041
1938	418,927,660	14,008,941	1944	304,582,198	13,706,199
1939	388,569,550	12,313,768	1945	346,994,472	17,349,723
1940	471,850,256	15,863,605	1946[1]	354,444,076	23,924,975
1941	460,167,005	15,470,815			

[1] Subject to revision.

Subsection 5.—Nickel

The greater part of the world's output of nickel is produced in Canada and the source of all but a small percentage of the 190,811,179 lb. produced in 1946 came from the nickel-copper ores of the Sudbury district. Some nickel is also obtained as a by-product from the treatment of cobalt-silver ores. The nickel-copper industry includes the mining, smelting and, to a certain extent, the refining of nickel-copper ores. The ore is mined principally for the nickel-copper content, but silver, gold, selenium, tellurium and metals of the platinum group are profitably recovered in the metallurgical processes, although they are present in relatively small quantities. Smelting and copper refining operations are carried on by the International Nickel Company of Canada, Limited, at Copper Cliff, Ont., in close proximity to the mines, and refined nickel is produced at Port Colborne, Ont. The Falconbridge Mines Limited, has a smelter at Falconbridge, Ont., but the matte from this plant is shipped to Norway for refining. During the War, the Falconbridge matte was treated by the International Nickel Company at Copper Cliff.

14.—Quantities and Values of Nickel Produced, 1936-46

Note.—Figures for the years 1889-1910, inclusive, will be found at p. 368 of the 1929 Year Book; for 1911-28 at p. 342 of the 1939 edition; and for 1929-35 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	lb.	$		lb.	$
1936	169,739,393	43,876,525	1942	285,211,803	69,998,427
1937	224,905,046	59,507,176	1943	288,018,615	71,675,322
1938	210,572,738	53,914,494	1944	274,598,629	69,204,152
1939	226,105,865	50,920,305	1945	245,130,983	61,982,133
1940	245,557,871	59,822,591	1946[1]	190,811,179	46,844,738
1941	282,258,235	68,656,795			

[1] Subject to revision.

Subsection 6.—Metals of the Platinum Group

Metals of the platinum group include palladium, rhodium, ruthenium, osmium and iridium, with platinum and iridium the most important. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont.; the crude residues are sent to the refinery at Acton, England, for refining. The great increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced Russia. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, jewellery and in medical and dental appliances. Canada produced 666,908 ounces of platinum metals for a total value of $26,688,084, in 1945. Production was greatly reduced in 1946.

15.—Quantities and Values of Platinum and Palladium Produced, 1936-46

Note.—Records of the platinum production in Canada go back to 1887 but, prior to 1921, the amounts were comparatively small and the basis of calculation was not comparable with that now used. Figures for the years 1921-35 will be found at p. 340 of the 1940 Year Book.

Year	Platinum		Palladium[1]		Year	Platinum		Palladium[1]	
	oz. fine	$	oz. fine	$		oz. fine	$	oz. fine	$
1936	131,571	5,320,731	103,671	2,483,075	1942	285,228	10,898,561	222,573	8,279,221
1937	139,377	6,752,816	119,829	3,179,782	1943	219,713	8,458,951	126,004	5,233,068
1938	161,326	5,196,794	130,893	3,677,342	1944	157,523	6,064,635	42,929	1,960,085
1939	148,902	5,222,589	135,402	4,199,622	1945	208,234	8,017,010	458,674	18,671,074
1940	108,486	4,240,362	91,522	3,520,746	1946[2]	130,400	8,216,504	114,200	4,758,717
1941	124,317	4,750,153	97,432	3,396,304					

[1] Includes also rhodium, ruthenium, osmium and iridium. [2] Subject to revision.

Subsection 7.—Silver

Silver mining is not a distinct industry in Canada as the silver-bearing minerals occur in association with other metals of economic value. Most of the metal is obtained from the treatment of base-metal ores although substantial amounts are recovered from gold-quartz ores and from alluvial gold deposits. For many years the famous camp at Cobalt, Ont., supplied the bulk of Canada's silver, but output from this area has been quite small in recent years. In 1946, 47·7 p.c. of Canada's silver came from British Columbia, 21·0 p.c. from Ontario, 15·3 p.c. from Quebec, 4·2 p.c. from Manitoba, 11·7 p.c. from Saskatchewan and 0·1 p.c. from Yukon and the Northwest Territories. Consumption of silver in Canada has increased substantially in recent years and now amounts to about 8,000,000 fine oz. annually.

16.—Quantities and Values of Silver Produced, 1936-46

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 361 of the 1933 Year Book; for the years 1911-28 at p. 344 of the 1939 edition; for 1929-35 at p. 334 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	oz. fine	$		oz. fine	$
1936	18,334,487	8,273,804	1942	20,695,101	8,726,296
1937	22,977,751	10,312,644	1943	17,344,569	7,849,111
1938	22,219,195	9,660,239	1944	13,627,109	5,859,656
1939	23,163,629	9,378,490	1945	12,942,906	6,083,166
1940	23,833,752	9,116,172	1946[1]	12,676,928	10,604,250
1941	21,754,408	8,323,454			

[1] Subject to revision.

17.—Quantities of Silver Produced, by Provinces, 1936-46

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 271 of the 1916-17 Year Book; for the years 1911-28 at p. 345 of the 1939 edition; for 1929-35 at p. 334 of the 1946 edition. The relatively small quantities of silver produced in Alberta are not shown in this table.

Year	Average Price per fine oz. (Canadian funds)	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Yukon	Northwest Territories
	cts.	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1936	45·13	107.642	724,339	5,219,366	791,489	642,497	9,748,715	783,416	317,014
1937	44·88	26,990	908,590	4,693,047	905,179	821,818	11,530,177	3,956,504	135,442
1938	43·48	988	1,189,495	4,318,837	1,198,315	898,413	11,186,563	2,844,659	581,902
1939	40·49	173,877	1,167,444	4,689,422	1,028,485	1,141,600	10,648,031	3,830,864	483,874
1940	38·25	725	1,340,450	5,563.101	1,033,512	1,691,540	11,885,556	2,259,343	59,505
1941	38·26	673	1,657,082	4,977,476	966,105	2,047,164	11,233,788	856,772	15,327
1942	42·17	446	1,655,042	4,452,787	821,824	2,664,132	10,596,204	482,133	22,531
1943	45·84	144	2,212,115	2,671,320	587,279	2,812,624	8,995,488	52,348	13,250
1944	43·00	188	2,500,681	3,143,275	569,873	1,735,773	5,631,572	32,066	13,677
1945	47·00	112	2,149,570	3,185,369	533,883	1,426,457	5,620,323	25,158	2,033
1946[1]	83·65	127	1,934,427	2,664,781	530,000	1,483,000	6,049,497	9,727	5,357

[1] Subject to revision.

Subsection 8.—Zinc

Zinc production in Canada in 1946 showed a decrease of 8·8 p.c. over 1945. In the later year, British Columbia accounted for 58 p.c. of the total, Manitoba and Saskatchewan for 23 p.c. and Quebec for about 19 p.c.

The principal zinc-mining regions of British Columbia are situated in the Kootenay district, where there are large deposits of silver-lead-zinc ore. The chief producing mine is the Sullivan near Kimberley, while other mines are located in the

Ainsworth and Slocan divisions of the West Kootenay district. The Britannia mine on Howe Sound, while primarily a copper-gold property, produces zinc concentrates when the market is favourable.

In northwestern Manitoba, the Flin Flon and Sherritt-Gordon mines have ores in which zinc is closely associated with copper and gold, and refined zinc has been made at the Hudson Bay Mining and Smelting Company's smelter from Flin Flon ores since the autumn of 1930. During 1945, zinc concentrates were shipped by the Waite-Amulet Mines, the Normetal Mining Corporation and the Golden Manitou Mines in the Rouyn district in Quebec, and by the New Calumet mines, near Renfrew, Ont. Production by provinces in 1945 is given in Table **6**, p. 450.

Domestic requirements now take about 60,000 tons of refined zinc compared with 20,000 tons in pre-war years.

18.—Quantities and Values of Zinc Produced, 1936-46

NOTE.—Figures for the years 1911-28 are given at p. 347 of the 1939 Year Book; for 1929-35 at p. 335 of the 1946 edition.

Year	Quantity[1]	Value	Average Price per lb.	Year	Quantity[1]	Value	Average Price per lb.
	lb.	$	cts.		lb.	$	cts.
1936......	333,182,736	11,045,007	3·315	1942......	580,257,373	19,792,579	3·411
1937......	370,337,589	18,153,949	4·902	1943......	610,754,354	24,430,174	4·000
1938......	381,506,588	11,723,698	3·073	1944......	550,823,353	23,685,405	4·300
1939......	394,533,860	12,108,244	3·069	1945......	517,213,604	33,308,556	6·440
1940......	424,028,862	14,463,624	3·411	1946[2].....	471,833,216	36,850,174	7·810
1941......	512,381,636	17,477,337	3·411				

[1] Estimated foreign smelter recoveries and refined zinc made in Canada.

[2] Subject to revision.

Subsection 9.—World Production of Metallic Minerals

Complete figures of world production of such metals as gold, silver, copper, lead and nickel are not available for the war years. Tables **19** and **20** give historical figures of world production of gold and silver up to 1941, while Table **21** gives the available production of these metals by countries for 1943 and 1944.

19.—Quantities and Values of World Production of Gold, 1891-1941[1]

(From the Annual Report of the Director of the United States Mint)

NOTE.—Figures for intervening years from 1900-25 are given at p. 335 of the 1946 Year Book.

Year	Quantity	Value	Year	Quantity	Value
	oz. fine	$		oz. fine	$
1891................	6,320,194	130,650,000	1930...............	20,903,736	432,118,638
1895................	9,615,190	198,763,600	1931...............	22,284,290	460,650,527
1900................	12,315,135	254,576,300	1932...............	24,098,676	498,163,970
1905................	18,396,451	380,288,300	1933...............	25,400,295	525,070,547
1910................	22,022,180	455,239,100	1934...............	27,372,374	958,033,090[2]
1915................	22,846,608	472,283,884	1935...............	29,999,245	1,049,973,580
1920................	16,146,830	333,784,924	1936...............	32,930,554	1,152,569,390
1925................	18,673,178	384,009,921	1937...............	35,118,298	1,229,140,430
1926................	19,117,568	395,198,984	1938...............	37,703,334	1,319,616,690
1927................	19,058,736	393,979,954	1939...............	39,534,430	1,383,705,050
1928................	18,885,849	390,386,574	1940...............	41,067,101	1,437,348,535
1929................	19,207,452	397,153,303	1941...............	40,332,204	1,411,627,140

[1] World totals for the years since 1941 have not been published.

[2] At $20·67 + per oz. fine prior to 1934; at $35 per oz. fine for 1934 and later years.

20.—Quantities and Values of World Production of Silver, with Annual Average Prices, 1891-1941[1]

(From the Annual Report of the Director of the United States Mint)

NOTE.—Figures for the years 1860-99, inclusive, will be found at p. 346 of the 1939 Year Book; for the intervening years from 1900-25 at p. 337 of the 1946 edition.

Year	Quantity	Value	Average Price per fine oz.[2]	Year	Quantity	Value	Average Price per fine oz.[2]
	'000 oz. fine	$'000	$		'000 oz. fine	$'000	$
1891	137,170	135,500	0·988	1930	248,708	96,310	0·387
1895	167,501	109,546	0·654				
1900	173,591	107,626	0·620	1931	195,920	56,842	0·290[2]
1905	172,318	105,114	0·610	1932	164,893	46,506	0·282
1910	221,716	119,897	0·541	1933	169,159	59,201	0·350
1915	173,001	88,338	0·519	1934	190,398	91,930	0·483
1920	173,296	176,658	1·019[2]	1935	220,704	142,535	0·646
				1936	253,696	115,175	0·454
1925	245,214	172,498	0·703	1937	274,574	124,077	0·452
1926	253,795	159,569	0·629	1938	267,765	116,577	0·435
1927	253,981	144,947	0·570	1939	265,927	104,762	0·394
1928	257,925	151,214	0·583	1940	272,510	95,610	0·351
1929	260,970	139,961	0·536	1941	262,854	92,249	0·351

[1] World totals for the years since 1941 have not been published. [2] At the average par price of a fine ounce of silver in London, excepting the years 1918-22, inclusive, and 1931-41, for which the means of the New York bid and asked prices were used.

21.—Quantities and Values of the World Production of Gold and Silver, by Principal Countries, 1943 and 1944

NOTE.—Abridged from the Annual Report of the Director of the United States Mint; many of the figures are estimates, the sources of which are given as footnotes to the U. S. Mint table. It is not possible to obtain official figures or even reliable estimates for many countries, mainly European, during the war years, which were shown in the corresponding table of the Canada Year Book for pre-war years. World totals have therefore been omitted.

Country	1943				1944			
	Gold		Silver		Gold		Silver	
	Quantity	Value ($35·00 per oz.)	Quantity	Value ($0·45062 per oz.)[1]	Quantity	Value ($35·00 per oz.)	Quantity	Value ($0·45062 per oz.)[1]
	oz. fine	$	oz. fine	$	oz. fine	$	oz. fine	$
NORTH AMERICA—								
U.S.A.	1,380,758	48,326,530	40,794,568	18,382,848	1,022,238	35,778,330	35,651,049	16,065 076
Canada	3,649,671	127,738,485	17,230,939	7,764,606	2,922,911	102,301,885	13,627,109	6,140 648
Mexico	632,989	22,154,615	86,371,554	38,920,750	508,882	17,810,870	73,502,802	33,121,833
Newfoundland	18,735	655.725	1,258,708	567,199	18,329	641,515	1,163,206	524,164
TOTALS	5,682,153	198,875,355	145,655,769	65,635,403	4,472,360	156,532,600	123,944,166	55,851,721
CENTRAL AMERICA AND WEST INDIES	302,300	10,580,500	3,586,000	1,615,923	267,000	9,345,000	3,716,300	1,674,639
SOUTH AMERICA—								
Argentina	14,500	507,500	1,100,000	495,682	14,000	490,000	1,000,000	450,620
Bolivia	8,327	291,445	7,299,561	3,289,328	6,265	219,275	6,797,213	3,062,960
Brazil	160,336	5,611,760	30,061	13,546	166,400	5,824,000	28,700	12,933
Chile	269,807	9,443,245	1,093,542	492,772	203,749	7,131,215	996,577	449,078
Colombia	565,500	19,792,500	209,944	94,605	553,530	19,373,550	197,318	88,915
Peru	196,868	6,890,380	14,659,744	6,605,974	175,180	6,131,300	15,832,440	7,134,414
Venezuela	58,000	2,030,000	Nil	–	58,900	2,061,500	Nil	–
TOTALS[2]	1,405,104	49,178,640	24,754,865	11,155,037	1,305,407	45,689,245	24,328,813	11,368,608
EUROPE	[3]	–	[3]	–	[3]	–	[3]	–
ASIA—[4]								
British India[5]	252,353	8,832,355	[3]	–	187,191	6,551,685	[3]	–
OCEANIA—								
Australia	751,279	26,294,765	8,593,311	3,872,318	657,570	23,014,950	8,000,000	3,604,960
Fiji	64,420	2,254,700	19,518	8,795	40,443	1,415,505	9,619	4,335
New Zealand	149,150	5.220,250	280,786	126,528	142.287	4,980,045	264,300	119,099
TOTALS	964.849	33,769,715	8,893,615	4,007,641	840,300	29,410,500	8,273,919	3,728.394
AFRICA—[4]								
British W.A.	700,000	24,500,000	60,000	27,037	600,000	21,000,000	60,000	27,037
S. Rhodesia	656,684	22,983,940	119,322	53,769	592,729	20,745,515	103,776	46,764
Union of S.A.	12,804,379	448,153,265	1,334,042	601,146	12,279,629	429,787,015	1,213,051	546,625

[1] Average price per fine ounce at New York. [2] Totals include other countries not specified. [3] Information not available. [4] Estimates incomplete, no total therefore given. [5] Including Burma.

Section 5.—Production of Fuels

Subsection 1.—Coal

The Coal Reserves of Canada.*—A description of the coal deposits and coal resources of Canada appears in the 1946 Year Book, pp. 337-347. The classification of coals described in that article and indicated on the legends of the accompanying maps and on the map that accompanies this summary, is the uniform scientific classification of the coals of the North American continent as a whole which was evolved and later adopted after almost ten years of united research by the Committee of the American Society of Testing Materials, and the Canadian Associate Committee on Coal Classification that was set up in 1928 by the National Research Council of Canada.

On referring to this classification, which for convenience is repeated below, it will be noted that the coals have been divided into four main classes and thirteen groups. The adoption of this classification made possible for the first time an accurate comparison of the coal deposits of Canada with those of the United States as shown on the map of the Coal Fields in Canada and the United States that appears in the 1946 article. Prior to this investigation, coal deposits in these two countries having identical chemical and physical characteristics were being assigned to different groups and even to different classes.

The classification of coals by rank is based on the fact that different coals represent different stages in the process of metamorphism from the original vegetation through the series of peat, lignite, sub-bituminous, bituminous, and anthracite, and that each of these stages shows a different percentage of fixed carbon content and a different calorific value as calculated on the mineral-matter-free basis (ash free). The higher rank coals are classified according to the percentage of fixed carbon on a dry basis, whereas the lower rank coals, i.e., those containing less than 69 p.c. fixed carbon, are classified according to B.t.u. per pound on the moist (as mined) basis. The limits of the thirteen groups and the four main classes are indicated in the following statement.

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* Prepared by B. R. MacKay, Geologist, Geological Survey, and published by permission of the Director, Mines and Geology Branch, Department of Mines and Resources, Ottawa.

CLASSIFICATION OF COALS BY RANK
(American Society of Testing Materials designation 1937)

Class	Group	Limits of Fixed Carbon or B.t.u. Mineral-Matter-Free Basis	Requisite Physical Properties
I—Anthracite[1]	1. Meta-Anthracite	Dry F.C. 98 p.c. or more.	
	2. Anthracite	Dry F.C. 92 to 98 p.c.	
	3. Semi-anthracite	Dry F.C. 86 to 92 p.c.	Non-agglomerating.
II—Bituminous[3]	1. Low Volatile	Dry F.C. 78 to 86 p.c.	
	2. Medium Volatile	Dry F.C. 69 to 78 p.c.	
	3. High Volatile A	Dry F.C. less than 69 p.c. and moist[2] B.t.u. 14,000 or more.	
	4. High Volatile B	Moist[2] B.t.u. 13,000 to 14,000.	
	5. High Volatile C	Moist[2] B.t.u. 11,000 to 13,000	Either agglomerating or non-weathering.[5]
III—Sub-bituminous	1. A Coal	Moist[2] B.t.u. 11,000 to 13,000	Both weathering and agglomerating.
	2. B Coal	Moist[2] B.t.u. 9,500 to 11,000.	
	3. C[4] Coal	Moist[2] B.t.u. 8,300 to 9,500.	
IV—Lignitic	1. Lignite	Moist[2] B.t.u. less than 8,300	Consolidated.
	2. Brown coal	Moist[2] B.t.u. less than 8,300	Unconsolidated.

[1] If coal is agglomerating it is classified in the Low Volatile Bituminous group. [2] Moist B.t.u. refers to coal containing its natural bed-moisture, but not including visible water on the surface of the coal. [3] There may be coking and non-coking varieties in each group of bituminous coal. [4] Coals having 69 p.c. or more Fixed Carbon on a dry mineral-matter-free basis shall be classified according to Fixed Carbon regardless of B.t.u. [5] There are three varieties of coal in the High Volatile C Bituminous group, i.e., (1) agglomerating and non-weathering, (2) agglomerating and weathering, and (3) non-agglomerating and non-weathering.

With respect to the coal reserves of Canada, the estimate of Canada's coal reserves, as compiled by the late Dr. D. B. Dowling for the Twelfth International Geological Congress, Toronto, 1913, and as reproduced in Geological Survey of Canada, Memoir 59, 1915, should be regarded only as a rough approximation of coal occurring in the earth as a geological phenomenon—not as an estimate of coal that may be considered an economic asset. It was stated also that an estimate of mineable coal reserves of Canada was being prepared for the Royal Commission on Coal. This preliminary estimate appears in Table 22 and is shown in a series of diagrams at the base of the accompanying map.

It will be noted that the estimated coal reserves are arranged in five different groups as opposed to the ten groups shown on the map legend. The reason for this is that more than one rank of coal occurs in some of the deposits and the tonnages of some of these are so small or indefinite, due to the lack of chemical analysis, that it is difficult or impossible to separate the different ranks. For example, the known deposits of anthracitic coals in Canada are relatively small and such reserves as do exist have been included with those of Low Volatile Bituminous Coals in Group I of the tabulation and the graphical diagrams. On the other hand Group II of the estimate consists almost entirely of Medium Volatile Bituminous Coal, whereas Group III of the table includes the three ranks of High Volatile Bituminous Coals, A, B and C. Group IV includes the three ranks of Sub-bituminous Coals A, B and C, and Group V includes the two groups of lignitic coals—Lignite Coal and Brown Coal.

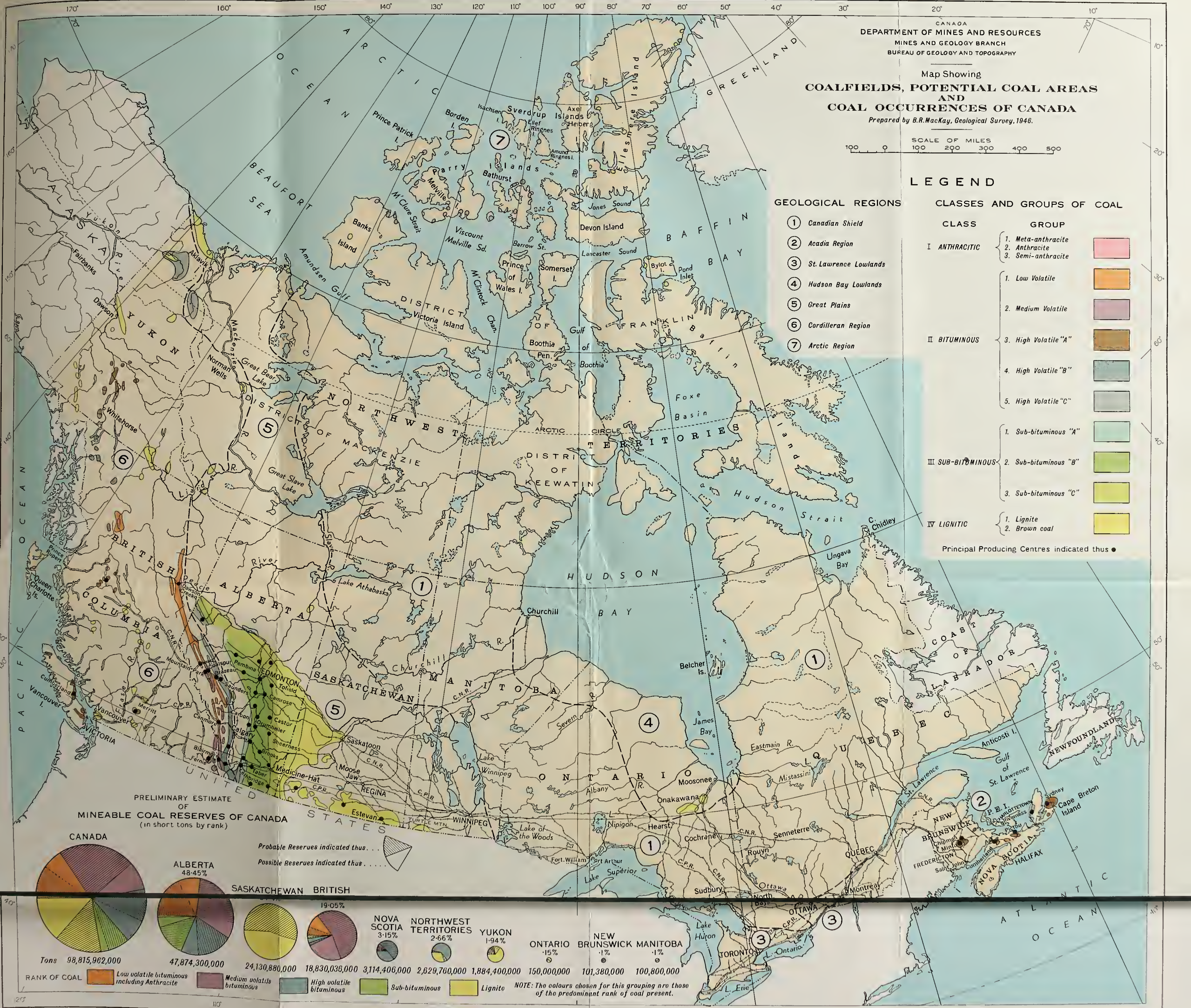
The reserves of each of these groups are calculated under the headings "Probable Reserves" and "Possible (Additional) Reserves". The Probable Reserves are those that have been calculated on considerable geological, drilling, and mining development data, whereas the Possible (Additional) Reserves are those based on geological data of much more limited extent. The probable reserves are indicated on the five diagrams by a lined pattern whereas the possible reserves are indicated by a blank colour.

In estimating the mineable coal reserves of Canada, it was found that no common yardstick with respect to minimum thickness of coal and maximum depth of mining could be employed as these differed materially in different provinces. The limits with respect to these factors that have been adopted are those found practical in the different coalfields under existing mining conditions.

Thus, in Nova Scotia where coal mining is at present being carried to a depth of almost 4,000 feet and in the submarine areas of the Sydney Coalfield where it is estimated that mining operations within this depth can be carried seaward for a distance of at least five miles from the outcrop, these limits have been set for economic mining development. The minimum thickness of coal seam that can be profitably mined at these limits of depth and distance is placed at 3 feet. In the Joggins coal area of the Cumberland Coalfield, N.S., however, coal seams 2½ feet thick are being mined profitably, and there a relatively small tonnage has been accordingly included.

In New Brunswick the coal seam being mined averages 18 inches in thickness and everywhere lies within 500 feet of the surface, and these figures have been used as the limits of economic development.

In Saskatchewan the lignite seams being mined are everywhere less than 500 feet in depth and, with the exception of the near-surface mining in the Kelfield coal area of western Saskatchewan, where the coal seam being mined is about 30 inches thick, all the coal seams under development are over 3 feet in thickness.


CANADA
DEPARTMENT OF MINES AND RESOURCES
MINES AND GEOLOGY BRANCH
BUREAU OF GEOLOGY AND TOPOGRAPHY

Map Showing
COALFIELDS, POTENTIAL COAL AREAS AND COAL OCCURRENCES OF CANADA
Prepared by B.R.MacKay, Geological Survey, 1946.

SCALE OF MILES
100 0 100 200 300 400 500
LEGEND
GEOLOGICAL REGIONS
① Canadian Shield
② Acadia Region
③ St. Lawrence Lowlands
④ Hudson Bay Lowlands
⑤ Great Plains
⑥ Cordilleran Region
⑦ Arctic Region
CLASSES AND GROUPS OF COAL
CLASS
GROUP
I ANTHRACITIC
1. Meta-anthracite
2. Anthracite
3. Semi-anthracite
II BITUMINOUS
1. Low Volatile
2. Medium Volatile
3. High Volatile "A"
4. High Volatile "B"
5. High Volatile "C"
III SUB-BITUMINOUS
1. Sub-bituminous "A"
2. Sub-bituminous "B"
3. Sub-bituminous "C"
IV LIGNITIC
1. Lignite
2. Brown coal
Principal Producing Centres indicated thus ●
PRELIMINARY ESTIMATE OF MINEABLE COAL RESERVES OF CANADA
(in short tons by rank)
Probable Reserves indicated thus . . .
Possible Reserves indicated thus . . . .
CANADA
Tons 98,815,962,000
ALBERTA
48·45%
47,874,300,000
SASKATCHEWAN
24,130,880,000
BRITISH
19·05%
18,830,036,000
NOVA SCOTIA
3·15%
3,114,406,000
NORTHWEST TERRITORIES
2·66%
2,629,760,000
YUKON
1·94%
1,884,400,000
ONTARIO
·15%
150,000,000
NEW BRUNSWICK
·1%
101,380,000
MANITOBA
·1%
100,800,000
RANK OF COAL
Low volatile bituminous including Anthracite
Medium volatile bituminous
High volatile bituminous
Sub-bituminous
Lignite
NOTE: The colours chosen for this grouping are those of the predominant rank of coal present.
ARCTIC OCEAN
BEAUFORT SEA
GREENLAND
BAFFIN BAY
HUDSON BAY
PACIFIC OCEAN
ATLANTIC OCEAN
ALASKA
YUKON
BRITISH COLUMBIA
ALBERTA
SASKATCHEWAN
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND
COAST OF LABRADOR
NEW BRUNSWICK
NOVA SCOTIA
P.E.I.
UNITED STATES
NORTHWEST TERRITORIES
DISTRICT OF MACKENZIE
DISTRICT OF KEEWATIN
DISTRICT OF FRANKLIN
ARCTIC CIRCLE
Sverdrup Islands
Axel Heiberg
Ellesmere Island
Parry Islands
Prince Patrick I.
Borden I.
Melville
Bathurst I.
Banks Island
Victoria Island
Devon Island
Baffin Island
Prince of Wales I.
Somerset I.
Boothia Pen.
Gulf of Boothia
Foxe Basin
Hudson Strait
Ungava Bay
C. Chidley
Belcher Is.
James Bay
Great Bear Lake
Great Slave Lake
Lake Athabaska
Lake Winnipeg
Lake of the Woods
Lake Superior
Lake Huron
L. Ontario
L. Erie
Aklavik
Dawson
Whitehorse
Fairbanks
Norman Wells
Churchill
Peace R.
Dawson Creek
EDMONTON
Calgary
Drumheller
Medicine Hat
Lethbridge
Saskatoon
REGINA
Moose Jaw
Estevan
WINNIPEG
Vancouver
VICTORIA
Nanaimo
Merritt
Canmore
Fernie
Blairmore
Onakawana
Moosonee
Fort William
Port Arthur
Sudbury
North Bay
OTTAWA
TORONTO
Montreal
QUEBEC
FREDERICTON
Minto
Saint John
HALIFAX
Sydney
Cape Breton Island
Pictou
Cumberland
Anticosti I.
Gulf of St. Lawrence
Queen Charlotte Is.
Prince Rupert
Vancouver I.
C.P.R.
C.N.R.

With
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A thickness of 3 feet or more and a maximum depth of 500 feet are accordingly set as the limits in estimating the mineable coal reserves.

In the Plains areas of Alberta, the limits of profitable mining for the sub-bituminous coal deposits are placed at a minimum thickness of 3 feet and a maximum depth of 1,000 feet.

In the Foothills belt of Alberta and eastern British Columbia where bituminous coals of Lower and Upper Cretaceous and of Tertiary ages occur, the economic limits of mining are placed at 3 feet thickness and a maximum depth or cover of 2,500 feet.

In southern, central and northern British Columbia and in Yukon Territory, where coals of lignitic and bituminous ranks occur, the limits of economic mining are set at 3 feet thickness of coal seam and 1,000 feet maximum depth. On Vancouver Island and Graham Island where coal deposits of Upper Cretaceous age and of bituminous and anthracitic rank occur, the limits in estimating mineable reserves are placed at a minimum thickness of 3 feet and a maximum depth of 2,000 feet.

Very few data pertaining to the thickness and ranks of the coal deposits in the Northwest Territories and especially in the Arctic Islands are available. The estimates of mineable reserves that have been made are based on limited areas near the coal occurrences and on an assumed minimum thickness of seam of 3 feet. In calculating the reserves, 1·29 has been taken as the specific gravity of the coal, which is about 80 pounds of coal per cubic foot, 1,750 short tons of coal per acre foot, and 1,120,000 short tons of coal per square mile foot.

The reserves of mineable coal, as given in Table 22, cannot be compared with the estimates of total coal reserves published by the Geological Survey in G.S.C. Memoir 53, 1913, for reasons given previously (p. 466). These Geological Congress estimates of 1913 must, however, be retained for comparative geological purposes until a complete re-estimate of the mineable or recoverable coal reserves throughout the world has been made. The current estimate of mineable reserves may be considered a very conservative one and doubtless it will be considerably increased as greater exploration and additional knowledge relating to the deposits of the different coalfields is acquired. In most of the coalfields only a small fraction of the area likely to be underlain by coal has been used in the computation, the extent of such areas being determined by the known occurrences of coal and the thicknesses of the seam or seams at the different localities.

The current estimate of mineable coal is less than one-tenth of the 1913 estimate of total coal. The estimates show a slight change also in the relative standing of the different coal-bearing provinces. Alberta, though retaining the leading position, is credited with only 48 p.c. of the mineable coal reserves of Canada as against the former estimate of 85 p.c. Saskatchewan holds second place with 24 p.c. of the mineable reserves replacing British Columbia which has only 19 p.c. of the mineable reserves. The Saskatchewan coal, however, is of lignitic rank whereas that of British Columbia is largely of bituminous and sub-bituminous ranks. Nova Scotia stands fourth with more than 3 p.c. of the total mineable coal reserves, most of which is of High Volatile A Bituminous Coal. Northwest Territories stands fifth with slightly less than 3 p.c. of the total mineable reserves, Yukon sixth with about 2 p.c., and New Brunswick, Manitoba and Ontario combined possess the remaining reserves which amount to less than 0·5 p.c. of the total mineable coal. The percentages of the estimates of probable and possible reserves and of the coals of the five groups indicated in Canada as a whole and in its several coal-bearing provinces, are indicated in Table 22.

22.—Coal Reserves, by Provinces, Classified by Rank, with Percentages of Total for Each Province

Source: Associate Committee on Coal Classification of the National Research Council.

Rank	Nova Scotia		New Brunswick		Ontario		Manitoba		Saskatchewan	
	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total	Amount	P.C. of Total
	'000 tons	p.c.	'000 tons	p.c.	'000 tons	p.c.	'000 tons	p.c.	'000 tons	p.c.
Probable Reserves—										
Low volatile bituminous including anthracite	2,360	0·1	Nil	-	Nil	-	Nil	-	Nil	-
Medium volatile bituminous	25,504	0·8	"	-	"	-	"	-	"	-
High volatile bituminous	1,939,160	62·2	89,814	88·7	"	-	"	-	"	-
Sub-bituminous	Nil	-	Nil	-	"	-	"	-	"	-
Lignite	"	-	"	-	100,000	66·7	33,600	33·4	13,126,880	54·4
Totals, Probable Reserves	1,967,024	63·1	89,814	88·7	100,000	66·7	33.600	33·4	13,126,880	54·4
Possible Reserves—										
Low volatile bituminous including anthracite	6,720	0·2	Nil	-	Nil	-	Nil	-	Nil	-
Medium volatile bituminous	16,000	0·5	"	-	"	-	"	-	"	-
High volatile bituminous	1,124,662	36·2	11,566	11·3	"	-	"	-	"	-
Sub-bituminous	Nil	-	Nil	-	"	-	"	-	"	-
Lignite	"	-	"	-	50,000	33·3	67,200	66·6	11,004,000	45·6
Totals, Possible Reserves	1,147,382	36·9	11,566	11·3	50,000	33·3	67,200	66·6	11,004,000	45·6
Grand Totals, Probable and Possible Reserves	**3,114,406**	**100·0**	**101,380**	**100·0**	**150,000**	**100·0**	**100,800**	**100·0**	**24,130,880**	**100·0**

	Alberta		British Columbia		Yukon		Northwest Territories		Canada	
	'000 tons	p.c.	'000 tons	p.c.	'000 tons	p.c.	'000 tons	p.c.	'000 tons	p.c.
Probable Reserves—										
Low volatile bituminous including anthracite	8,797,600	18·3	1,033,200	5·5	Nil	-	Nil	-	9,833,160	10·0
Medium volatile bituminous	11,854,080	24·5	10,337,748	54·8	87,360	4·6	"	-	22,304,692	22·5
High volatile bituminous	7,540,940	15·5	278,932	1·5	24,640	1·3	30,240	1·1	9,903.726	10·0
Sub-bituminous	6,245,120	13·6	Nil	-	Nil	-	Nil	-	6,245,120	6·4
Lignite	Nil	-	145,600	0·8	322,560	17·1	109,760	4·2	13,838,400	14·0
Totals, Probable Reserves	34,437,740	71·9	11,795,480	62·6	434,560	23·0	140,000	5·3	62,125,098	62·9
Possible Reserves—										
Low volatile bituminous including anthracite	4,334,400	9·0	1,738,800	9·2	Nil	-	Nil	-	6,079,920	6·1
Medium volatile bituminous	3,315,200	6·9	4,551,680	24·2	182,560	9·7	"	-	8,065,440	8·2
High volatile bituminous	3,473,120	7·3	630,956	3·4	28,560	1·6	1,696.800	64·3	6,965,664	7·1
Sub-bituminous	2,310,480	4·8	Nil	-	Nil	-	Nil	-	2,310,480	2·3
Lignite	3,360	0·1	113,120	0·6	1,238,720	65·7	792,960	30·4	13,269,360	13·4
Totals, Possible Reserves	13,436,560	28·1	7,034,556	37·4	1,449,840	77·0	2,489,760	94·7	36,690,864	37·1
Grand Totals, Probable and Possible Reserves	**47,874,300**	**100·0**	**18,830,036**	**100·0**	**1,884,400**	**100·0**	**2,629,760**	**100·0**	**98,815,962**	**100·0**

Coal Production.—The fuel situation in Canada is somewhat anomalous as, in spite of the enormous resources of coal and oil, output is relatively small in comparison with domestic requirements.

The Canadian coal areas are situated in the eastern and western provinces, while the areas of densest population and greatest industrial development, those of Ontario and Quebec, are more easily and economically supplied with coal from the nearer United States coalfields of Pennsylvania and Ohio. The coal produced in Nova Scotia, New Brunswick and British Columbia is all classed as bituminous, while Alberta produces semi-anthracite, bituminous, sub-bituminous and lignite, and Saskatchewan and Manitoba lignite only.

23.—Coal Production, by Provinces, 1936-46

NOTE.—Figures for the years 1874-1910, inclusive, will be found at p. 419 of the 1911 Year Book; for the years 1911-28 at p. 348 of the 1939 edition; and for 1929-35 at p. 347 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Totals	
								Quantity	Value
	short tons	short tons	short tons	short tons	short tons	short tons	short tons	short tons	$
1936....	6,649,102	368,618	4,029	1,020,792	5,696,960	1,489,171	510	15,229,182	45,791,934
1937....	7,256,954	364,714	3,172	1,049,348	5,562,839	1,598,843	84	15,835,954	48,752,048
1938....	6,236,417	342,238	2,016	1,022,166	5,251,233	1,440,287	361	14,294,718	43,982,171
1939....	7,051,176	468,421	1,138	960,000	5,519,208	1,692,755	Nil	15,692,698	48,676,990
1940....	7,848,921	547,064	1,697	1,097,517	6,203,839	1,867,846	"	17,566,884	54,675,844
1941....	7,387,762	523,344	1,246	1,322,763	6,969,962	2,020,844	"	18,225,921	58,059,630
1942....	7,204,852	435,203	1,265	1,301,116	7,754,053	2,168,541	"	18,865,030	62,897,581
1943....	6,103,085	372,873	999	1,665,972	7,676,726	2,039,402	"	17,859,057	62,877,549
1944....	5,745,671	345,123	Nil	1,372,766	7,428,708	2,134,231	"	17,026,499	70,433,169
1945....	5,112,615	361,184	"	1,532,995	7,800,151	1,699,768	"	16,506,713	67,588,402
1946[1]...	5,449,121	373,871	"	1,508,309	8,734,696	1,626,055	"	17,692,052	74,418,107

[1] Subject to revision.

Coal Consumption.—The sources of coal consumed in Canada in the calendar years 1936-45 are shown in Table 26 and detailed figures of coal made available for consumption in 1945 are given in Table 27; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not "cleared for consumption" until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, since coal is landed at Canadian ports and re-exported or ex-warehoused for ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.

24.—Imports of Anthracite, Bituminous and Lignite Coal into Canada, 1936-46

NOTE.—Anthracite dust is included under anthracite coal. Figures for the years 1868-1910, inclusive, will be found at p. 420 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-35 at p. 348 of the 1946 edition.

Year	Anthracite		Bituminous[1]		Lignite		Totals[1]	
	short tons	$	short tons	$	short tons	$	short tons	$
1936	3,418,556	17,897,635	9,700,002	17,039,408	4,873	18,347	13,123,431	34,955,390
1937	3,488,278	17,317,449	11,180,827	20,835,587	1,494	5,582	14,670,599	38,158,618
1938	3,475,801	18,079,657	9,533,729	17,734,567	2,961	11,690	13,012,491	35,825,914
1939	4,288,461	21,938,333	10,706,786	19,628,410	3,398	11,942	14,998,645	41,578,685
1940	3,944,255	23,123,417	13,479,986	26,499,046	2,493	7,669	17,426,734	49,630,132
1941	3,853,010	24,026,095	16,534,449	37,558,900	934	3,046	20,388,393	61,588,041
1942	4,911,625	31,506,629	20,025,483	50,343,442	239	1,148	24,937,347	81,851,219
1943	4,480,285	30,918,555	23,628,300	70,325,413	337	1,487	28,108,922	101,245,455
1944	4,452,991	33,417,990	24,270,692	79,718,988	171	1,038	28,723,854	113,138,016
1945	3,412,739	27,568,369	21,648,350	74,861,376	467	2,229	25,061,556[2]	102,431,974[2]
1946[3]	4,631,387	41,987,460	21,475,040	78,366,184	172	776	26,106,599[2]	120,354,420[2]

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[1] Includes coal ex-warehoused for ships' stores. [2] Canada also imported 142,435 short tons of briquettes of coal or coke valued at $1,114,617 in 1945 and 182,231 short tons valued at $1,449,221 in 1946. [3] Subject to revision.

25.—Exports of Coal Produced in Canada, 1936-46

NOTE.—Figures for the years 1868-1910, inclusive, will be found at p. 421 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-35 at p. 348 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	short tons	$		short tons	$
1936	411,574	1,792,584	1942	815,585	4,278,345
1937	355,268	1,441,879	1943	1,110,101	5,428,362
1938	353,181	1,540,990	1944	1,010,240	5,984,827
1939	376,203	1,666,934	1945	840,708	5,303,543
1940	504,898	2,361,551	1946[1]	862,489	5,946,224
1941	531,449	2,596,626			

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[1] Subject to revision.

26.—Consumption of Canadian and Imported Coal in Canada, by Quantities and Percentages, 1936-45

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 354 of the 1921 Year Book; for the years 1911-28 at p. 350 of the 1939 edition; and for 1929-35 at p. 349 of the 1946 edition.

Year	Canadian Coal[1]		Imported Coal "Entered for Consumption"				Grand Total	Per Capita[3]
			From U.S.A.	From United Kingdom	Total[2]			
	short tons	p.c.	short tons	short tons	short tons	p.c.	short tons	short tons
1936	14,508,652	53·3	10,801,643	1,498,656	12,719,515	46·7	27,228,167	2·487
1937	15,172,729	51·5	12,574,574	1,211,052	14,268,585	48·5	29,441,314	2·666
1938	13,800,094	53·5	10,754,747	1,257,887	12,012,634	46·5	25,812,728	2·315
1939	14,902,915	50·6	12,923,708	1,099,419	14,564,679	49·4	29,467,594	2·615
1940	16,666,234	49·5	15,509,779	1,514,458	17,036,090	50·5	33,702,324	2·961
1941	17,227,151	46·2	19,332,479	693,902	20,026,082	53·8	37,253,233	3·237
1942	17,725,761	42·0	24,140,841	388,948	24,529,361	58·0	42,255,122	3·626
1943	16,321,006	37·1	27,303,776	391,475	27,695,098	62·9	44,016,104	3·727
1944	15,660,808	35·7	27,948,008	218,511	28,166,201	64·3	43,827,009	3·650
1945	15,227,819	38·3	24,505,241	28,388	24,521,528	61·7	39,749,347	3·279

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[1] The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported. [2] Includes small tonnages from countries other than the United Kingdom and the United States. Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores. [3] Figures based on estimates of population given at p. 100.

27.—Coal Output, Exports, Imports, and Made Available for Consumption in Canada, 1945

Note.—For details by provinces, see the Annual Report on Coal Statistics for Canada.

Grade	Canadian Coal		Imported Coal[1]	Coal Made Available for Consumption
	Output	Exported		
	short tons	short tons	short tons	short tons
Anthracite	Nil	Nil	3,411,424	3,411,424
Bituminous	11,774,164	823,710	21,176,811	32,127,265
Sub-bituminous	3,199,554	Nil	Nil	3,199,554
Lignite	1,532,995	16,998	467	1,516,464
Totals	**16,506,713**	**840,708**	**24,588,702**	**40,254,707**

[1] Coal reaching Canadian ports whether or not it is cleared from customs.

Subsection 2.—Natural Gas

The producing natural gas wells in Eastern Canada are in southwestern Ontario, and near Moncton, N.B. In Western Canada the principal producing fields are in Alberta and include the Turner Valley (about 35 miles southwest of Calgary), Medicine Hat, Viking (about 80 miles southeast of Edmonton), Redcliff, Foremost, Bow Island and Wetaskiwin. Wainwright, Alta., is supplied with gas from the Maple Leaf Well in the Fabyan field. Near Lloydminster, in Saskatchewan, a well was brought into production during 1934 and there was a substantial increase in 1946 in output from this area. In 1946, Alberta was credited with 62 p.c. of the total value and 86 p.c. of the total quantity, while Ontario produced over 35 p.c. of the value and over 12 p.c. of the total quantity.

28.—Quantities and Values of Natural Gas Produced, by Provinces, 1936-46

Note.—For the years 1892-1919, see the Annual Report on the Mineral Production of Canada, 1928, p. 188; for the years 1920-28 see p. 347 of the 1940 Canada Year Book; and for 1929-35, p. 350 of the 1946 edition.

Year	New Brunswick		Ontario		Alberta		Canada[1]	
	M cu. ft.	$	M cu. ft.	$	M cu. ft.	$	M cu. ft.	$
1936	606,246	298,819	10,006,743	6,052,294	17,407,820	4,376,720	28,113,348	10,762,243
1937	576,671	283,922	10,746,334	6,588,798	20,955,506	4,766,437	32,380,991	11,674,802
1938	577,492	284,689	10,952,806	6,460,764	21,822,108	4,807,346	33,444,791	11,587,459
1939	606,382	292,403	11,966,581	7,261,928	22,513,660	4,915,821	35,185,146	12,507,307
1940	616,041	300,543	13,053,403	7,745,834	27,459,808	4,923,469	41,232,125	13,000,593
1941	653,542	317,437	11,828,703	7,140,130	30,905,440	5,175,364	43,495,353	12,665,116
1942	619,380	299,688	10,476,770	6,809,901	34,482,585	6,146,146	45,697,359	13,301,655
1943	675,029	327,787	7,914,408	6,543,913	35,569,078	6,241,815	44,276,216	13,159,418
1944	702,464	341,636	7,082,508	4,694,097	37,161,570	6,339,817	45,067,158	11,422,541
1945	653,230	317,568	7,199,970	4,837,586	40,393,061	7,095,910	48,411,585	12,309,564
1946[2]	512,000	251,000	6,000,000	4,000,000	40,189,000	7,033,000	46,902,000	11,354,000

[1] Totals for Canada include small amounts produced in Saskatchewan and the Northwest Territories.
[2] Subject to revision.

Subsection 3.—Petroleum

A brief account of the development of the petroleum industry in Canada is given at pp. 266-267 of the 1941 Year Book. The development of oil production in the Northwest Territories is covered in the 1943-44 edition, pp. 316-317.

The quantity of crude petroleum produced in 1946 was 9·6 p.c. less than that produced in 1945. This decline was due chiefly to the decrease in production from the Turner Valley of Alberta. However, the important feature in the 1946 Canadian oil situation was the production of the Lloydminster area straddling the Alberta-Saskatchewan boundary. This district is now second in importance among the oil-producing areas in Canada.

29.—Quantities and Values of Crude Petroleum Produced, by Provinces, 1936-46

Year	New Brunswick		Ontario		Alberta[1]		Northwest Territories		Canada	
	bbl.	$	bbl.	$	bbl.	$	bbl.	$	bbl.	$
1936.....	17,112	24,075	165,495	350,767	1,312,368	3,919,930	5,399	26,995	1,500,374	3,421,767
1937.....	18,089	25,496	165,205	356,000	2,749,085	4,961,002	11,371	56,855	2,943,750	5,399,353
1938......	19,276	27,246	172,641	359,268	6,751,312	8,775,094	22,855	68,565	6,966,084	9,230,173
1939.....	22,799	32,082	206,379	401,430	7,576,932	9,362,363	20,191	50,477	7,826,301	9,846,352
1940.....	22,167	31,220	187,644	397,078	8,362,203	10,694,394	18,633	37,265	8,590,978[2]	11,160,213[2]
1941.....	31,359	44,102	160,238	337,760	9,918,577	13,985,906	23,664	47,328	10,133,838	14,415,096
1942.....	28,089	39,467	143,845	306,242	10,117,073	15,514,665	75,789	108,477	10,364,796	15,968,851
1943.....	24,530	34,342	132,492	311,356	9,601,530	15,724,518	293,750	400,201	10,052,302	16,470,417
1944.....	23,296	32,832	125,067	296,420	8,727,366	14,468,061	1,223,675	632,587	10,099,404	15,429,900
1945.....	30,140	42,413	113,325	268,478	7,979,786	13,169,692	345,171	136,303	8,482,796[2]	13,632,248[2]
1946[3].....	29,000	41,000	121,000	284,000	7,149,000	14,189,000	223,000	287,000	7,668,000[2]	14,961,000[2]

[1] These figures are compiled on a somewhat different basis from the figures of the Alberta Government given on p. 473. [2] Includes 331 bbl. at $256 produced in Saskatchewan in 1940; 14,374 bbl. at $15,362 in 1945; and 146,000 bbl. at $160,000 in 1946. [3] Subject to revision.

The Alberta Oil Fields.*—Over 90 p.c. of Canada's oil is produced from the wells of Alberta. The year 1942 was the peak year for oil production in that Province when, for the first time in its history, the oil fields produced over 10,000,000 bbl. Since then there has been a steady decline in production. In 1946, oil production for Alberta as a whole showed a decrease of 917,747 bbl. as compared with the previous year. This was the result of a decrease of 1,050,489 bbl. in the production of Turner Valley wells, less an increase of 132,742 bbl. from fields outside the Valley.

Fields outside the Turner Valley continued to show increases as in previous years, with the exception of Vermilion. Taber, Conrad and Lloydminster provided the most noticeable increases in 1946. The Lloydminster field was the centre of interest during the year. Situated some 30 miles to the east of Vermilion, it lies partly in Alberta and partly in Saskatchewan. Production on the Alberta side totalled 76,187 bbl. in 1946, an increase of 47,866 over 1945. On the Saskatchewan side, the total was 136,863 bbl., an increase over the preceding year of 120,355 bbl.

With the falling off of production in the Turner Valley field the great need in Western Canada was for the discovery of a second major field. Outside of Turner Valley and Norman Wells, the extensive efforts and the large amounts of capital expended had not been really fruitful. It is true that Lloydminster has made pronounced strides and is still enlarging its activities, but this did not answer the problem. In February, 1947, Leduc No. 1 Well was brought in by Imperial Oil and this drew immediate attention to a new field situated about 18 miles south of Edmonton and 10 miles west of the town of Leduc. From the first this well showed signs of being a major producer, and it was immediately followed by three other wells in the same area which also proved to be in the major production class. As at June 15, 1947, four more wells were being drilled in the proven area, all of which appear to be assured of high production. While, of course, time and the results of large-scale drilling programs alone will tell the actual significance of the new field, results to date are very promising.

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* Statements taken from "1946 Alberta Oil Review" by J. L. Irwin, Supervisor of Publications, Government of Alberta.

The work of exploration for new Alberta oil fields is continuing by the application of scientific research and the drilling of test wells. Many new structures are being explored, among which that of the Smoky River area between Entrance and Grande Prairie is of special interest.

30.—Production of Petroleum from Alberta Wells, 1914-45

Year	Quantity	Year	Quantity	Year	Quantity	Year	Quantity
	bbl.		bbl.		bbl.		bbl.
1914-21......	56,675	1928........	489,532	1935........	1,263,968	1942........	10,136,296
1922........	15,796	1929........	999,523	1936........	1,320,428	1943........	9,674,548
1923........	10,003	1930........	1,436,259	1937........	2,796,874	1944........	8,788,726
1924........	17,749	1931........	1,454,816	1938........	6,743,101	1945........	8,055,440
1925........	180,885	1932........	918,154	1939........	7,593,492	1946........	7,137,693
1926........	219,598	1933........	1,012,784	1940........	8,495,207		
1927........	332,312	1934........	1,266,049	1941........	9,908,643	**Total......**	**90,324,551**

The Tar Sands and Bituminous Developments.—Alberta, in its bituminous sands deposit at McMurray, has the greatest known oil reserve on the face of the earth. Estimates vary between that of Canadian geologists at 100,000,000,000 tons and that of the United States Bureau of Mines at 250,000,000,000 tons. The yield at present is about one barrel of oil per ton of sands.

At Bitumount, 50 miles north of McMurray on the Athabaska River, an Oil Sands Limited plant has been erected and experimentation regarding processing of the sand in that area is being carried out. Overburden covering the outcrop is very light at Bitumount and the product, being soft, lends itself more readily to separation than the harder outcrop in other parts of the reserve.

Another feature of the Bitumount area is the question of usage of the separated sand for glass manufacture. The sand analysed for such purpose has been favourably reported on, and quantities have been transported to points of manufacture.

A rich deposit of 'liquid bitumen' has been uncovered by Dominion Government geologists on the west side of the Mildred-Ruth Lakes Area, opposite the mouth of Steepbank River, 20 miles north of Fort McMurray in northeastern Alberta. The estimate of bitumen content per acre ranges as high as 350,000 bbl. The deposit is located within 20 miles of the north terminus of the Northern Alberta Railway at Waterways, and is about 250 miles north and east of Edmonton.

Within the area of best-grade material in the deposit, the 18 holes assayed thus far give a good indication of the quality and size of the deposit and, while they are quite insufficient for any precise estimates, the presence of a deposit large enough to warrant consideration of commercial development is indicated.

Discovered in the course of wartime exploration operations, the deposit will be turned over to Abasand Oils Limited, the operation of which was taken over by the Alberta Government during the War years to speed commercial development of the 'tar sands'.

Subsection 4.—Empire and World Production of Fuels

Coal.—The total estimated coal production of the world in 1938, the latest year for which complete figures are available, amounted to about 1,420,000,000 long tons, a decrease of 6 p.c. from the previous year.

Petroleum.*—Oil production for the world, in 1945, reached a total of 2,493,680,000 bbl.; this figure is exclusive of production in Russia and in countries previously controlled by the Axis Powers. The countries contributing the major part of this total were: United States, 1,754,190,000 bbl.; Venezuela, 295,550,000 bbl.; Near and Middle East, 184,690,000 bbl.; and Mexico, 42,340,000 bbl. The production of each of these countries showed an increase over 1944.

The British Empire produces only about 2 p.c. of world production of petroleum. Table **30** shows Empire production for the years 1942 to 1945.

31.—Petroleum Production in the British Empire, 1942-45

Country	1942	1943	1944	1945	P.C. of Total 1945
	bbl.	bbl.	bbl.	bbl.	
Bahrein Island	7,250,000	6,570,000	6,800,000	7,304,000	13·6
Brunei	Nil	Nil	11,000,000	8,000,000	14·9
Burma	2,500,000	913,000	750,000	750,000	1·4
Canada	10,384,019	10,123,205	10,099,404	8,567,947	16·0
England	Nil	Nil	670,000	500,000	0·9
India	2,500,000	2,555,000	3,000,000	3,000,000	5·6
Sarawak	Nil	Nil	4,000,000	4,000,000	7·5
Trinidad	21,500,000	25,000,000	22,000,000	21,500,000	40·1
Totals, British Empire	**44,134,019**	**45,161,205**	**58,319,404**	**53,621,947**	**100·0**
P.C. British Empire of World	2·15	1·95	2·27	2·15	–

A general estimate of world oil production for 1946, with presently procurable figures, gives an average daily production of 7,750,000 bbl. or an approximate grand total for the year of over 2,800,000,000 bbl. The United States, responsible for 60 p.c. of world production as in former years, stood first in quantity of production. Venezuela came definitely in second place, followed by the Middle East, the oil-producing countries under this heading being the Persian Gulf, Iran, Iraq, Saudi Arabia, Bahrein Island, Kuwait, Qatar and Egypt. Russia came fourth. Figures for 1946 are not at present available for all countries of the British Empire.

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* Preliminary data supplied by J. L. Irwin, Supervisor of Publications, Government of Alberta.

Section 6.—Production of Non-Metallic Minerals (Excluding Fuels)

The most important minerals in this group are asbestos, gypsum, salt and sulphur, but it also includes numerous other items such as feldspar, graphite, iron oxide, magnesitic dolomite, mica, nepheline-syenite, silica brick, sodium sulphate, soapstone and talc.

Subsection 1.—Asbestos

The asbestos produced in Canada is practically all of the chrysotile variety and comes entirely from the serpentized rock in the Eastern Townships of Quebec. The value of the annual production of asbestos increased from less than $24,700 in 1880 to $22,805,157 in 1945 and $24,490,695 in 1946. The Canadian deposits are the largest known in the world. The producing centres are Thetford mines, which has been producing since 1878, Black Lake, East Broughton, Vimy Ridge, Asbestos, and St. Remi de Tingwick. The veins of chrysotile asbestos vary in width from one-quarter inch to one-half inch and occasionally fibre has been obtained several inches in length. The fibre is of good quality and well adapted to spinning.

The world's largest market is in the United States and Canada's proximity to this market is very advantageous to the asbestos industry in this country.

32.—Quantities and Values of Asbestos Produced, 1936-46

Note.—Figures for the years 1896-1910, inclusive, will be found at p. 424 of the 1911 Year Book; for the years 1911-28 at p. 354 of the 1939 edition; and for 1929-35 at p. 353 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	short tons	$		short tons	$
1936	301,287	9,958,183	1942	439,459	22,663,283
1937	410,026	14,505,791	1943	467,196	23,169,505
1938	289,793	12,890,195	1944	419,265	20,619,516
1939	364,472	15,859,212	1945	466,897	22,805,157
1940	346,805	15,619,865	1946[1]	549,497	24,490,695
1941	477,846	21,468,840			

[1] Subject to revision.

Subsection 2.—Gypsum

The use of gypsum in the building trades has made rapid progress and Canada has extensive deposits of gypsum favourably situated for commercial developments. They are chiefly located in Hants, Inverness and Victoria counties, N.S.; Hillsborough, N.B.; Hagersville and Caledonia, Ont.; Gypsumville and Amaranth, Man.; and Falkland, B.C. The Hillsborough deposit of gypsum in New Brunswick is of very high grade. Gypsum is exported from Canada in crude form mainly to the United States for the manufacture of gypsum products. Canadian production of gypsum amounted to 1,833,717 tons in 1946.

33.—Gypsum Produced, by Provinces, 1936-46

NOTE.—Figures for the years 1926-35 are given at p. 321 of the 1943-44 Year book.

Year	Nova Scotia		New Brunswick	Ontario	Manitoba	British Columbia	Canada	
	Quantity	Value	Quantity	Quantity	Quantity	Quantity	Quantity	Value
	tons	$	tons	tons	tons	tons	tons	$
1936.......	729,019	808,294	38,470	40,191	12,064	14,078	833,822	1,278,971
1937.......	926,796	978,288	36,906	53,780	13,941	15,764	1,047,187	1,540,483
1938.......	870,856	908,383	48,418	57,503	14,571	17,451	1,008,799	1,502,265
1939.......	1,298,618	1,340,830	29,765	59,440	15,961	18,150	1,421,934	1,935,127
1940.......	1,278,204	1,302,347	52,218	75,271	23,108	19,987	1,448,788	2,065,933
1941.......	1,395,172	1,517,297	56,172	90,599	27,601	23,862	1,593,406	2,248,428
1942.......	394,216	512,762	36,623	82,796	29,218	23,313	566,166	1,254,182
1943.......	255,736	368,639	36,263	92,448	37,989	24,412	446,848	1,381,468
1944.......	401,284	489,932	42,040	90,288	38,330	24,222	596,164	1,511,978
1945.......	634,960	790,273	46,755	92,174	42,275	23,617	839,781	1,783,290
1946[1]......	1,559,618	1,757,100	45,000	123,899	64,300	40,900	1,833,717	3,226,000

[1] Subject to revision.

Subsection 3.—Salt

Salt is obtained from brine wells in the Provinces of Ontario, Manitoba and Alberta, while at Malagash, N.S., it is recovered by mining rock salt and by evaporation from brine. The centres of production in Ontario of the salt industry are in Amherstburg, Goderich, Sandwich and Windsor. The market for salt in Canada is steadily increasing. Domestic production is sold principally to the dairy, meat-curing and -canning industry, to fisheries, to highways and transport departments, to agriculturists for use as a soil sweetener, to the chemical industries, and as table salt. In 1946, Ontario produced 435,677 tons of salt, 82 p.c. of the Canadian total. About one-half of the Dominion's output is used in making caustic soda, soda ash and related chemicals.

34.—Salt Produced, by Provinces, 1936-46

NOTE.—Figures for the years 1926-35 are given at p. 354 of the 1946 Year Book.

Year	Nova Scotia	Ontario	Manitoba	Alberta	Canada	
	tons	tons	tons	tons	tons	$
1936........................	38,774	350,044	2,498	Nil	391,316	1,773,144
1937........................	47,865	407,701	3,391	"	458,957	1,799,465
1938........................	44,950	388,130	2,920	4,045	440,045	1,912,913
1939........................	47,885	370,843	2,453	3,319	424,500	2,486,632
1940........................	42,495	412,401	3,076	6,742	464,714	2,823,269
1941........................	54,007	477,170	13,051	16,617	560,845	3,196,165
1942........................	50,199	558,407	22,706	22,360	653,672	3,844,187
1943........................	47,775	594,889	27,523	17,499	687,686	4,379,378
1944........................	38,809	603,806	27,267	25,335	695,217	4,074,021
1945........................	37,825	578,697	27,133	29,421	673,076	4,054,720
1946[1].......................	36,957	435,677	26,600	31,016	530,250	3,370,511

[1] Subject to revision.

Subsection 4.—Sulphur

Sulphur production statistics given in Table 35 represent the quantity and value of sulphur contained in iron pyrites shipped plus the quantity and value of sulphur reclaimed for acid manufacture, etc., from smelter fumes. As thus defined, the commercial output of sulphur in Canada during 1946 totalled 231,476 short tons valued at $1,766,119 compared with 250,114 tons worth $1,881,321 in 1945. Production in 1946 comprised 96,854 tons of sulphur in iron pyrites and 134,622 tons recovered from smelter gases. Output by provinces was: Quebec 92,854 tons valued at $386,899; Ontario, 15,322 tons at $153,220; and British Columbia, 123,300 tons at $1,226,000.

Sulphur is used in Canada chiefly in the production of sulphite pulp and in the production of artificial silk and newsprint. It is used to a large extent also in the manufacture of sulphuric acid, explosives and rubber goods and in the production of ammonium sulphate fertilizers.

35.—Quantities and Values of Sulphur Produced, 1936-46

NOTE.—Figures for the years 1926-35 are given at p. 355 of the 1946 Year Book.

Year	Quantity	Value	Year	Quantity	Value
	tons	$		tons	$
1936	122,132	1,033,055	1942	303,714	1,994,891
1937	130,913	1,154,992	1943	257,515	1,753,425
1938	112,395	1,044,817	1944	248,088	1,755,739
1939	211,278	1,668,025	1945	250,114	1,881,321
1940	170,630	1,298,018	1946[1]	231,476	1,766,119
1941	260,023	1,702,736			

[1] Subject to revision.

Section 7.—Production of Clay Products and Other Structural Materials

Production of clay products and other structural materials is dependent upon the activity of the construction industry in Canada; output in 1946 reached a record value of $61,414,604. This group includes cement, clay, and clay products (brick, drain tile, sewer pipe, etc.), lime, sand, gravel and stone. The cement industry in Canada began with the manufacture of hydraulic or natural rock cement. Production was probably first obtained at Hull, Que., between 1830 and 1840. The manufacture of Portland cement began about 1889 and the largest production is now in Quebec and Ontario, although there are active plants in Manitoba, Alberta, and British Columbia. Common clays, suitable for the production of building bricks and tile are found in all the provinces of Canada, although production is greatest in Ontario and Quebec which are the chief areas of population.

Stoneware clays are largely produced from the Eastend and Willows area in Saskatchewan and shipped to Medicine Hat, Alta., where, owing to the availability of cheap gas fuel, they are used extensively in the manufacture of stoneware, sewer pipe, pottery, tableware, etc. Stoneware clay also occurs near Shubenacadie and Musquodoboit in Nova Scotia, some of the Musquodoboit clay is used for pottery, but it has not been developed extensively for ceramic use. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia.

Important deposits of high-grade, plastic, white burning clays occur in northern Ontario, and clay deposits which yield a high-grade of china clay have been found along the Fraser River in British Columbia, but china clay has been produced commercially only from the vicinity of St. Remi D'Amherst, Papineau County, Que., where mining operations were carried on prior to 1923.

Ball clays of high bond strength occur in the "White Mud" beds of southern Saskatchewan, but these have not been developed to any extent.

36.—Values of Clay Products and Other Structural Materials Produced, by Provinces, 1936-46

Note.—Figures for the years 1926-35 are given at p. 355 of the 1946 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	$	$	$	$	$	$	$	$	$
1936....	1,763,516	931,827	7,503,022	10,326,967	1,666,789	380,115	1,245,549	1,925,293	25,770,741[1]
1937....	2,293,325	1,128,931	10,350,583	15,121,178	1,673,124	585,673	1,303,533	2,413,352	34,869,699
1938....	1,611,111	2,188,889	11,619,514	11,997,177	1,805,875	781,224	1,627,462	2,247,414	33,878,666
1939....	1,829,207	1,911,041	12,319,773	12,856,694	1,646,797	556,973	1,947,453	2,314,821	35,382,759
1940[2]...	1,855,771	936,161	15,001,749	16,636,844	2,600,304	906,181	2,971,550	2,795,389	43,703,949
1941[2]...	1,330,888	1,145,412	16,631,657	18,652,999	2,197,095	631,732	2,626,277	3,416,996	46,633,056
1942[2]...	1,980,912	1,305,343	17,723,293	16,557,804	2,317,933	707,123	2,836,160	3,564,405	46,992,973
1943....	1,597,791	911,121	15,430,999	15,020,990	2,288,339	932,412	2,661,834	3,166,768	42,010,254
1944....	1,081,805	1,637,409	14,597,540	15,716,361	2,546,722	864,082	3,044,236	3,496,782	42,984,937
1945....	1,310,214	1,489,210	17,051,353	17,437,552	3,212,917	834,564	3,305,941	3,777,922	48,419,673
1946[3]...	1,912,156	1,669,850	21,458,694	22,113,501	4,302,771	1,353,669	4,080,207	4,523,756	61,414,604

[1] Includes $27,663 for sand and gravel in Prince Edward Island. [2] Includes value of cement containers. [3] Subject to revision.

37.—Values (Total Sales) of Clay Products Produced, by Provinces, 1936-46

Note.—Figures for the years 1926-35 are given at p. 356 of the 1946 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	$	$	$	$	$	$	$	$	$
1936....	355,254	102,256	691,765	1,573,936	55,564	95,584	315,777	280,891	3,471,027
1937....	406,846	123,876	1,053,153	2,033,845	95,531	115,330	338,638	349,640	4,516,859
1938....	340,253	123,625	1,022,194	2,083,496	105,334	118,713	377,337	365,132	4,536,084
1939....	339,952	129,985	1,274,776	2,346,638	78,892	148,774	461,079	371,140	5,151,236
1940....	490,543	171,745	1,546,246	2,508,540	102,906	164,828	838,856	520,883	6,344,547
1941....	529,435	193,643	1,944,358	3,087,616	84,817	224,897	952,144	558,426	7,575,336
1942....	618,441	246,041	1,741,297	2,549,486	80,890	271,325	1,013,497	560,746	7,081,723
1943....	478,571	216,446	1,504,428	2,453,829	132,382	348,725	978,649	495,163	6,608,193
1944....	402,694	207,051	1,881,791	2,347,396	197,383	330,907	1,143,577	486,626	6,997,425
1945....	433,455	232,783	2,534,630	3,107,189	269,917	271,288	1,401,875	661,955	8,913,092
1946[1]...	679,500	352,700	3,550,613	4,318,233	338,000	379,156	1,789,873	817,500	12,225,575

[1] Subject to revision.

38.—Quantities and Values of Production (Sales), Imports and Exports and Apparent Consumption of Portland Cement, 1936-45

Note.—Figures for the years 1910-28 are given at p. 356 of the 1939 Year Book; and for 1929-35 at p. 356 of the 1946 edition.

Year	Production[1]		Imports		Exports		Apparent Consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	bbl.[2]	$	bbl.[2]	$	bbl.[2]	$	bbl.[2]	$
1936.......	4,508,718	6,908,192	39,867	107,180	68,929	56,909	4,479,656	6,958,463
1937.......	6,168,971	9,095,867	61,082	134,113	72,568	82,978	6,157,485	9,147,002
1938.......	5,519,102	8,241,350	48,497	105,326	89,419	101,059	5,478,180	8,245,617
1939.......	5,731,264	8,511,211	16,622	58,316	156,556	159,579	5,591,330	8,409,948
1940.......	7,559,648	11,775,345	13,213	69,821	299,975	414,442	7,272,886	11,430,724
1941.......	8,368,711	13,063,588	11,986	59,162	310,873	517,762	8,069,824	12,604,988
1942.......	9,126,041	14,365,237	26,320	116,126	273,880	476,284	8,878,481	14,005,079
1943.......	7,302,289	11,599,033	18,577	111,698	172,601	344,004	7,148,265	11,366,727
1944.......	7,190,851	11,621,372	14,004	97,966	210,449	377,434	6,994,406	11,341,904
1945.......	8,471,679	14,246,480	32,653	141,539	281,944	535,012	8,222,388	13,853,007

[1] 'Production' as used here means quantity and value of sales. [2] The barrel of cement equals 350 lb. or 3½ cwt.

Deposits of sand and gravel are numerous throughout eastern Canada, with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits, as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province, except New Brunswick and Prince Edward Island, produces natural bonded sand. By far the greatest part of production comes from the Niagara Peninsula, Ont.

Some grades of sand particularly suitable for certain industries demand a much higher price than ordinary sand. Commercial production of sand and gravel is greatest in Quebec and Ontario, these two provinces contributed 73 p.c. of the total quantity in 1946.

The greater part of the output of gravel and sand is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

The stone industry in Canada has two main divisions, stone quarrying and the stone products industry. The kind of stone quarried in Canada includes granite, limestone, marble, sandstone and slate. The products of these quarries yield high-grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada in 1945 totalled $8,166,700.

39.—Quantities and Values of Sand, Sand and Gravel, and Stone Produced, 1943-45

Material and Purpose	1943		1944		1945	
	Quantity	Gross Value	Quantity	Gross Value	Quantity	Gross Value
	tons	$	tons	$	tons	$
Sand—						
Moulding sand	42,656	76,199	31,947	65,168	31,611	57,842
For building, concrete, roads, etc.	1,970,316	775,392	1,605,514	743,191	2,247,887	918,739
Other	77,223	17,609	50,513	18,761	191,510	68,468
Sand and Gravel—						
For railway ballast	3,837,111	712,140	4,428,721	900,610	4,625,513	1,116,297
For concrete, roads, etc.	16,060,686	6,155,625	16,648,511	6,898,582	17,582,686	6,573,527
For mine filling	1,486,585	270,863	3,007,422	397,578	1,974,885	376,935
Crushed gravel	2,269,892	998,029	2,627,358	1,256,229	3,096,611	1,456,555
Totals, Sand, Sand and Gravel	**25,744,469**	**9,005,857**	**28,399,986**	**10,280,119**	**29,750,703**	**10,568,363**
Stone—						
Building	17,087	314,428	23,142	396,202	56,711	751,401
Monumental and ornamental	11,235	514,263	15,942	737,564	16,229	786,403
Limestone for agriculture	271,036	533,217	316,945	601,042	419,579	891,802
Chemical Uses—						
Flux	837,554	682,635	626,052	523,554	538,798	489,055
Pulp and paper	215,382	374,880	208,665	374,137	212,051	413,055
Other	276,290	272,612	274,645	272,681	300,665	313,059
Rubble and riprap	540,627	418,925	201,601	187,823	241,780	237,018
Crushed	4,942,578	4,421,787	4,219,635	3,641,959	4,282,286	3,742,506
Totals, Stone[1]	**7,222,950**	**7,964,179**	**5,994,992**	**7,159,177**	**6,205,555**	**8,166,700**

[1] Totals include minor items not specified.

CHAPTER XVII.—POWER GENERATION AND UTILIZATION

CONSPECTUS

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Section 1.—Water Power

Canada as a whole has been very favourably endowed with water-power resources. A country of great lakes and rivers, its large areas of favourable topography, combined with adequate, well-distributed precipitation in most sections, present great opportunities for the development of water power. Precipitation, the raw material of water power, varies from more than 100 inches annually on the Pacific Coast to about 12 inches in certain sections of the Prairies and Northwest Territories; in Ontario and Quebec, the annual average is 24 to 40 inches; in Nova Scotia it is about 45 inches. The run-off from this precipitation, much of it from considerable altitudes, creates in its descent to the sea sources of potential energy at every rapid and fall along the streams and rivers. Canada's innumerable lakes, which have a total area in excess of 200,000 square miles, also provide storage basins for the regulation and control of its stream flow, thus enhancing its potential power. The distribution of available power resources, more than one-half of which occur in Ontario and Quebec, has fostered great industrial development and has compensated in large degree for the lack of commercial fuel deposits in these provinces.

Since the turn of the present century, water power has been a dominant factor in the evolution of the Canadian economy. In 1900, Canada was predominantly an agricultural country and water power, with the advent of long-distance transmission of electricity, was just beginning to exert its influence in the development of large-scale industry. In the succeeding decades, this influence grew rapidly and so encouraged the economic utilization of the natural resources of land, mine and forest throughout the Dominion that Canada has attained a position of first-rate importance among the manufacturing countries of the world. Water-power installations, which totalled only 173,000 h.p. in 1900, grew to 977,000 h.p. in 1910, 2,516,000 h.p. in 1920, 6,125,000 h.p. in 1930, 8,584,000 h.p. in 1940, and at the beginning of 1947 had reached a total of 10,312,123 h.p. This places Canada in a position second only to the United States, the foremost country in

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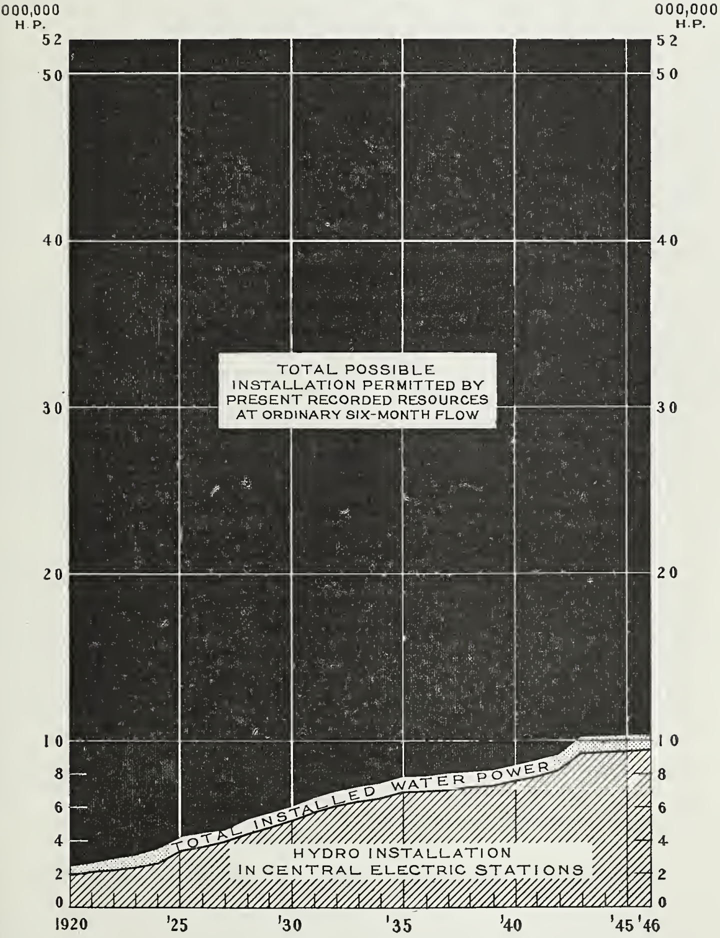
* In this Chapter of the Year Book all information respecting power generation and utilization in Canada is co-ordinated; some sections, however, cannot be regarded as complete owing to the insufficiency of available data. Section 1 has been revised under the direction of J. M. Wardle, Director, Surveys and Engineering Branch, Department of Mines and Resources, by V. Meek, Controller, Dominion Water and Power Bureau, and Sections 2, 3 and 4 (except as otherwise stated) by G. S. Wrong, Chief, Transportation and Public Utilities Division, Dominion Bureau of Statistics.

POTENTIAL AND INSTALLED WATER POWER
IN
CANADA
1920 - 46



the world in the development of water power and, on the commonly accepted basis of one horse-power being the equivalent of the work of ten men, furnishes energy equal to that of more than 100,000,000 workers.

From hydro-electric developments ranging in size from a few hundred to more than 1,000,000 horse-power, networks of transmission lines carry power not only to most urban centres in Canada and to industries in isolated locations but also in increasing degree to rural areas in many parts of the Dominion.

Low-cost hydro-electric energy is fundamental to the economic mining, milling and refining of base and precious metals, and enables these metals to be fabricated into a multitude of manufactured products. It supplies the enormous power needs of pulp, paper and other wood-products industries, and of the lesser but important needs of food processing, textile, and many other industries throughout Canada. It has contributed largely to a high standard of living in Canada by providing low-cost domestic service to homes and farms, a service being rapidly extended in the post-war period.

Canada's great hydro-electric undertakings, built to meet the domestic and industrial requirements of the country in peacetime, have been of incalculable value to the Dominion's participation in two world wars. This is particularly true of the War of 1939-45 in which mechanization played such an important part. During the six years of that War more than 2,000,000 h.p. was added to Canada's water-power installation, virtually all of which was utilized for war production; great quantities of power also were diverted from peacetime to wartime use. About one-third of all electric energy generated in Canada during the war years was devoted entirely to war purposes, enabling this country to produce materials and munitions of war on a scale entirely disproportionate to its population.

During 1946, the power industry entered energetically into the task of readjustment and return to normal peacetime services. Contrary to some previous expectations, the fall in the demand for power in 1946, the first full post-war year, did not generally materialize. Of the new generating capacity added during war years, part has been absorbed by the normal growth in demand for power which was restricted during wartime and part now provides the normal emergency reserves conducive to good service. In certain instances there has been a surplus of power but the channelling of this capacity into such activities as steam generation has been proceeding in orderly manner. In other districts, new hydro-electric developments have been undertaken or are being planned to provide for the growing needs of farms, communities and industries.

Subsection 1.—Water-Power Resources and Their Development

Table 1 presents a summary of the water-power resources of Canada according to the Dominion Water and Power Bureau's records as of Dec. 31, 1946. In the case of developed power the figures for 1945 are listed for comparative purposes.

1.—Available and Developed Water Power by Provinces, 1945 and 1946

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency December, 1946		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	Dec. 31, 1945	Dec. 31, 1946
	h.p.	h.p.	h.p.	h.p.
Prince Edward Island	3,000	5,300	2,617	2,617
Nova Scotia	20,800	128,300	133,384	133,384
New Brunswick	68,600	169,100	133,347	133,347
Quebec	8,459,000	13,064,000	5,848,572	5,848,572
Ontario	5,407,200	7,261,400	2,673,290	2,679,740
Manitoba	3,309,000	5,344,500	422,825	446,825
Saskatchewan	542,000	1,082,000	90,835	90,835
Alberta	507,800	1,258,000	94,997	93,060
British Columbia	7,023,000	10,998,000	864,024	864,024
Yukon and Northwest Territories	382,500	813,500	19,719	19,719
Canada	**25,722,900**	**40,124,100**	**10,283,610**	**10,312,123**

The figures listed in the first and second columns of Table 1 represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head possible of concentration, has been measured or at least carefully estimated. Many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams from coast to coast; these will become available for tabulation only as more detailed survey work is completed, particularly in the less-explored northern districts. Also, unless definite studies have been carried out and the results made matters of record, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads possibly may be created by the construction of power dams.

The third and fourth columns give the total capacity of the water wheels actually installed throughout the Dominion; these figures should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available water-power resources developed. At developed sites, the water-wheel installation throughout the Dominion averages 30 p.c. greater than the corresponding calculated maximum available power figures included in the second column and covering the same sites. The above figures, therefore, indicate that the *at present recorded water-power resources* of the Dominion will permit of a turbine installation of more than 52,000,000 h.p.; also, the turbine installation at Dec. 31, 1946, represents roughly only 20 p.c. of recorded water-power resources and the figures in the first and second columns may be said to represent the *minimum water-power possibilities* of the Dominion.

The figures given in the table are shown in graphic form in the diagram on p. 481 which also includes the probable economic maximum turbine installation that would be reached if present known water-power resources were developed.

Subsection 2.—Statistics of the Growth of Water-Power Development

The growth of installed turbine capacity from 1900 to 1946 is shown by the figures given in Table 2, covering decades to 1940 and years 1941 to 1946.

2.—Hydraulic Turbine Horse-Power Installed by Provinces, as at Dec. 31, Decennially for 1900-40 and Annually for 1941-46

NOTE.—Statistics for intervening years 1900-30 are given on p. 361 of the 1939 Year Book and those for 1931-40 at p. 362 of the 1945 edition.

Year	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada [1]
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1900...	1,521	19,810	4,601	82,864	53,876	1,000	–	280	9,366	173,323
1910...	1,760	31,476	11,197	334,763	490,821	38,800	30	655	64,474	977,171
1920...	2,233	37,623	21,976	955,090	1,057,422	85,325	35	33,122	309,534	2,515,559
1930...	2,439	114,224	133,681	2,718,130	2,088,055	311,925	42,035	70,532	630,792	6,125,012
1940...	2,617	139,217	133,347	4,320,943	2,597,595	420,925	90,835	71,997	788,763	8,584,438
1941...	2,617	139,217	133,347	4,556,943	2,617,495	420,925	90,835	71,997	788,763	8,845,038
1942...	2,617	143,717	133,347	4,839,543	2,684,395	420,925	90,835	94,997	792,563	9,225,838
1943...	2,617	133,384	133,347	5,847,322	2,673,443	422,825	90,835	94,997	796,024	10,214,513
1944...	2,617	133,384	133,347	5,848,572	2,673,443	422,825	90,835	94,997	864,024	10,283,763
1945...	2,617	133,384	133,347	5,848,572	2,673,290	422,825	90,835	94,997	864,024	10,283,610
1946...	2,617	133,384	133,347	5,848,572	2,679,740	446,825	90,835	93,060	864,024	10,312,123

[1] Includes Yukon and the Northwest Territories. Turbine horse-power installed in Yukon for the decades 1900 to 1940 was, 5 h.p. in 1900, 3,195 h.p. in 1910, 13,199 h.p. in 1920 and 1930, and 18,199 h.p. in 1940; the removal of a 3,180-h.p. plant reduced the installation for 1943-46 to 15,019 h.p. In 1941, a 4,700-h.p. plant came into operation in the Northwest Territories.

Table 2 shows clearly the consistent growth in capacity since the beginning of the century; also the heavy increase in installation during the war years 1942 and 1943. The 1946 increase was small, but new installations at present under construction have a capacity in excess of 400,000 h.p.

Subsection 3.—Utilization of Hydraulic Power Installations

Table 3 has been prepared to show under three classifications the purposes for which the developed water power is primarily utilized.

3.—Developed Water Power by Provinces and Industries, as at Dec. 31, 1946

Province or Territory	Turbine Installation			Total [4]
	In Central Electric Stations[1]	In Pulp and Paper Mills[2]	In Other Industries[3]	
	h.p.	h.p.	h.p.	h.p.
Prince Edward Island	579	–	2,038	2,617
Nova Scotia	107,539	11,884	13,961	133,384
New Brunswick	104,710	20,694	7,943	133,347
Quebec	5,436,787	271,221	140,564	5,848,572
Ontario	2,371,697	223,692	84,351	2,679,740
Manitoba	444,925	–	1,900	446,825
Saskatchewan	87,500	–	3,335	90,835
Alberta	91,000	–	2,060	93,060
British Columbia	703,167	105,950	54,907	864,024
Yukon and Northwest Territories	2,000	–	17,719	19,719
Canada	**9,349,904**	**633,441**	**328,778**	**10,312,123**
Percentages of total installation	90·7	6·1	3·2	100·0

[1] Includes only hydro-electric stations that develop power for sale. [2] Includes only water power *actually developed* by pulp and paper companies. [3] Includes only water power *actually developed* by industries other than central electric stations and the pulp and paper industries. [4] All water wheels and hydraulic turbines installed in Canada.

It may be noted that central electric station classification totalling 9,349,904 h.p. represents more than 90 p.c. of the total developed water power as of Dec. 31, 1946. In 1900 the corresponding percentage was 33·5, thus showing the tremendous growth in the central electric station industry since the inception of successful long-distance transmission of electricity. Central stations produce 98 p.c. of all electricity sold in or exported from Canada.

The pulp and paper turbine installation total of 633,441 h.p. shown in Table **3** includes only water power *actually developed* and directly used by pulp and paper companies. In addition, this industry is the greatest purchaser of central station power, buying about 50 p.c. of all power sold for industrial purposes. Part of the purchased power is classed as secondary, being used for steam generation by electric boilers which have a capacity of more than 1,750,000 h.p. The motor installations for the use of primary purchased power aggregate approximately 1,370,000 h.p.

The "other industries" group of Table **3**, column 3, develops a total of 328,778 h.p. solely for their own use. These diversified industries also provide a broad market for the power sold by the central electric stations.

The figure of total hydraulic installation in Canada, 10,312,123 h.p. is the cumulative total of installation for all water wheels and hydraulic turbines. It has been adjusted to Dec. 31, 1946, by the addition of any installations made during the year even though this equipment may not be in use; adjustments are also made covering turbines or water wheels that have been removed. Somewhat similar figures are reported by the annual Census of Industry but they differ slightly since they are compiled on a different basis; they represent only the sum of the installations in the plants actually in operation during the year being reported by the Census, not total installation; also census data are usually not available until some time after the end of the period.

Additional information regarding Canada's water-power resources is included in the 1940 Canada Year Book, pp. 353-364. Comparison is made with the resources of other countries and an extensive review is given of problems connected with the development, distribution and merchandising of power in Canada.

Subsection 4.—Progress in Hydro-Electric Development

During 1946, the water-power industry made very good progress in the transition from wartime to normal peacetime service, notwithstanding certain dislocations such as those caused by the drop in production of aluminum which had absorbed large quantities of power during the war years. Shortages of material and labour delayed the development of uses for secondary power and of various planned post-war extensions of service including the provision of power to farms and rural communities. However, although the demand for primary power fell slightly, total production of electric energy showed a rising trend.

To provide for the anticipated normal post-war growth demand in various districts, a number of hydraulic undertakings were under active construction during 1946. The more extensive projects are located in Ontario and British Columbia but the program also included new construction in the Northwest Territories, Alberta, Manitoba and Quebec.

The Hydro-Electric Power Commission of Ontario had three large installations under construction; at DeCew Falls near St. Catharines work was continued on the addition of a new 70,000-h.p. unit to the plant and on other incidental works;

at Stewartville on the Madawaska River, construction was active on a development of 81,000 h.p.; and on the Aguasabon River in the Thunder Bay district construction was begun on a new 53,000-h.p. development. Preliminary work was also initiated on a large development at Des Joachims Rapids on the Ottawa River, present plans being for a capacity of 360,000 h.p.

In British Columbia, active construction was under way on a 50,000-h.p. development at Elk Falls on the Campbell River, Vancouver Island, by the British Columbia Power Commission. On the mainland, the British Columbia Electric Railway Company began construction on its Bridge River project, the first stage of which includes a diversion dam and other works and the installation of a 62,000-h.p. unit.

In the Northwest Territories, the Dominion Government, through the Department of Mines and Resources, initiated the construction of an 8,000-h.p. development on the Snare River to augment the supply of power to mines and other users in the Yellowknife area.

The Calgary Power Company, Limited, virtually completed the construction of a 13,500-h.p. development on the Kananaskis River near Seebe, Alberta, which will be linked with the Company's other plants on the Bow and Cascade Rivers serving a large part of Alberta from a transmission network.

In Manitoba, the Winnipeg Hydro-Electric System added two new units of 12,000 h.p. each to the Slave Falls power station on the Winnipeg River.

In Quebec, the Lower St. Lawrence Power Company is building a new 6,000-h.p. hydro-electric development on Metis River, one mile below its present plant. The Gatineau Power Company proceeded with the installation of the fifth and final unit of 24,000 h.p. in its plant at Farmers Rapids on the Gatineau River. The Shawinigan Water and Power Company is undertaking an important addition to its installation at Shawinigan Falls by the construction of a new power house to contain three 65,000-h.p. units which will take at least two years to complete.

Section 2.—The Central Electric Station Industry

An article dealing with Government control of power in wartime is given at pp. 336-337 of the 1945 Canada Year Book.

Summary of Energy Generated by Type of Station, 1944 and 1945.—Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or Provincial Governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel, and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydraulic installations in all industries in Canada and the generators driven by this hydraulic equipment generate 98 p.c. of the total output of all central electric stations.

4.—Electric Energy Generated, by Type of Station and by Provinces, 1944 and 1945

Province or Territory	1944			1945		
	Generated by—		Total	Generated by—		Total
	Water Power	Thermal Engines		Water Power	Thermal Engines	
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Prince Edward Island	385	15,583	15,968	470	16,283	16,753
Nova Scotia	328,535	254,054	582,589	357,290	243,139	600,429
New Brunswick	394,315	127,636	521,951	472,791	125,909	598,700
Quebec	23,270,739	6,776	23,277,515	22,219,679	7,333	22,227,012
Ontario	10,536,054	2,520	10,538,574	10,733,989	2,753	10,736,742
Manitoba	2,228,799	4,056	2,232,855	2,280,969	2,820	2,283,789
Saskatchewan	Nil	243,884	243,884	Nil	249,518	249,517
Alberta	322,015	233,019	555,034	305,047	261,698	566,745
British Columbia and Yukon	2,472,510	157,899	2,630,409	2,760,786	89,581	2,850,367
Totals	**39,553,352**	**1,045,427**	**40,598,779**	**39,131,021**	**999,034**	**40,130,054**

Subsection 1.—Statistics of Central Electric Stations

The growth of the central electric stations industry has been almost continuous since 1919, when statistics of kilowatt hours generated were first made available. The depression that occurred in the early 1930's resulted in decreased output of power for several years but output soon recovered. During the war years 1939-44 the equipment was used to the practical maximum capacity, the output increasing by 42 p.c. from 1938 to 1944. The output declined slightly in 1945 but reached a new record in 1946 at 102 p.c. of the 1944 figure.

The central electric stations industry is one that is particularly suited to large-scale operation, because of the huge outlays of capital necessary. Capital invested and total horse-power installed increased almost continuously even during the depression years, mainly because large power projects, planned before the depression, were in process of construction. Off-peak and surplus power, used mainly in electric boilers of pulp and paper plants, grew steadily to a peak of 7,803,000,000 kwh. in 1937 but, owing to war requirements for firm power, it was reduced in 1940-45, and amounted to only 6,645,822,000 kwh. in the latter year.

5.—Summary Statistics of Central Electric Stations, 1931-45

Note.—Figures for the years 1917-30 will be found at p. 369 of the 1940 Year Book.

Year	Stations	Capital Invested	Revenue from Sale of Power[1]	Power Equipment Capacity[2]	Kilowatt Hours Generated	Customers	Persons Employed	Salaries and Wages
	No.	$	$	h.p.	'000	No.	No.	$
1931	559	1,229,988,951	122,310,730	5,706,757	16,330,867	1,632,792	17,014	26,306,956
1932	572	1,335,886,987	121,212,679	6,343,654	16,052,057	1,657,454	15,395	23,261,166
1933	575	1,386,532,055	117,532,081	6,616,006	17,338,990	1,666,882	14,717	21,431,877
1934	573	1,430,852,166	124,463,613	6,854,161	21,197,124	1,660,079	14,974	21,829,491
1935	566	1,459,821,168	127,177,954	7,104,142	23,283,033	1,694,703	15,342	22,519,993
1936	561	1,483,116,649	135,865,173	7,119,272	25,402,282	1,740,793	16,087	23,367,091
1937	568	1,497,330,231	143,546,643	7,342,085	27,687,645	1,805,995	17,018	25,623,767
1938	589	1,545,416,592	144,331,627	7,476,976	26,154,160	1,873,621	17,929	27,148,688
1939	611	1,564,603,211	151,880,969	7,607,122	28,338,030	1,941,663	18,848	28,223,376
1940	602	1,615,438,140	166,228,773	7,935,867	30,109,283	2,006,508	19,054	28,895,595
1941	607	1,641,460,451	186,080,354	8,157,585	33,317,663	2,081,270	19,880	31,647,952
1942	616	1,747,891,798	203,914,608	8,613,696	37,355,179	2,125,558	19,764	34,285,870
1943	622	1,778,224,640	204,801,508	9,602,794	40,479,593	2,169,148	19,120	35,785,932
1944	626	[3]	215,246,391	9,713,791	40,598,779	2,238,023	19,770	36,945,296
1945	[3]	[3]	[3]	[3]	40,130,054	2,333,230	21,283	39,521,365

[1] Excluding duplications. [2] Not including auxiliary-plant equipment. [3] Not available.

Although the amount of power used by domestic customers or for residential purposes has been only between 4 and 8 p.c. of the total production of central electric stations, this service is exceedingly important. Details of the number of domestic customers served, the kilowatt hours delivered and the costs to the customers, exclusive of direct Dominion, provincial and municipal taxes on such service, are shown in Table 6. The average consumption per customer and average cost per kilowatt hour vary considerably as between municipalities and also as between provinces; there are smaller differences between the average bills.

6.—Summary Statistics of Domestic Consumption of Electricity, 1931-45

Year	Customers	Consumption	Average Consumption per Customer	Average Charge per Annum	Average per kwh.
	No.	'000 kwh.	kwh.	$	cts.
1931	1,336,721	1,563,704	1,170	26·38	2·25
1932	1,357,462	1,639,498	1,208	26·83	2·22
1933	1,371,806	1,650,395	1,203	26·21	2·18
1934	1,379,153	1,717,090	1,245	26·47	2·13
1935	1,401,983	1,769,848	1,262	26·23	2·08
1936	1,443,059	1,887,116	1,308	26·61	2·03
1937	1,500,128	2,007,433	1,338	26·17	1·96
1938	1,559,394	2,172,500	1,393	26·49	1·90
1939	1,623,672	2,310,891	1,423	26·97	1·90
1940	1,694,388	2,436,572	1,438	27·41	1·91
1941	1,755,917	2,582,405	1,471	27·73	1·89
1942	1,803,708	2,716,895	1,506	28·11	1·80
1943	1,852,367	2,843,612	1,535	27·70	1·87
1944	1,906,452	3,046,980	1,598	27·96	1·75
1945	1,987,360	3,365,497	1,693	28·05	1·66

Equipment of Central Electric Stations.—Auxiliary equipment includes only thermal engines and generators operated by them in hydraulic stations and in non-generating plants and does not include spare equipment in thermal stations or spare hydraulic equipment in hydraulic stations. Such equipment is classed as main-plant equipment. The capacities of the equipment are the manufacturers' ratings and, for water wheels and turbines, vary with the supply of water. The majority of the hydraulic stations are large, serving wide areas over transmission lines, whereas most of the plants with thermal engines are small, serving the needs of the local municipality in each case.

7.—Main-Plant Equipment of Central Electric Stations, by Provinces, and Total Auxiliary Equipment, 1944

NOTE.—Kva. means kilo-volt-amperes.

Type of Equipment and Province	Power Plants	Water Wheels and Turbines			Thermal Engines			Generators		
		No.	Capacity	Average Capacity	No.	Capacity	Average Capacity	No.	Capacity	Average Capacity
MAIN-PLANT EQUIPMENT	No.		h.p.	h.p.		h.p.	h.p.		kva.	kva.
P.E.I.	9	6	363	61	16	8,852	553	20	6,945	347
N.S.	49	58	108,215	1,866	34	96,515	2,839	93	169,635	1,824
N.B.	14	17	107,010	6,295	18	44,240	2,458	34	129,262	3,802
Que.	101	294	5,397,912	18,360	11	3,015	274	303	4,573,219	15,093
Ont.	134	351	2,340,232	6,653	17	1,461	86	366	1,882,903	5,145
Man.	22	43	508,300	11,821	31	3,514	113	73	410,621	5,625
Sask.	145	Nil	–	–	284	168,966	595	285	142,846	501
Alta.	79	9	91,000	10,111	153	106,995	699	154	165,250	1,073
B.C. and Yukon	73	85	714,937	8,411	55	12,264	223	141	593,183	4,207
Totals	**626**	**863**	**9,267,969**	**10,739**	**619**	**445,822**	**720**	**1,469**	**8,073,864**	**5,496**
AUXILIARY-PLANT EQUIPMENT	Nil	Nil	–	–	111	185,117	1,668	100	157,866	1,579
Grand Totals	**626**	**863**	**9,267,969**	**10,739**	**730**	**630,939**	**864**	**1,569**	**8,231,730**	**5,246**

8.—Electric Energy Generated in Central Electric Stations, by Provinces, 1940-45

Province or Territory	1940	1941	1942	1943	1944	1945
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Prince Edward Island......	8,285	11,869	13,096	14,616	15,968	16,753
Nova Scotia................	444,061	480,177	516,828	579,470	582,589	600,429
New Brunswick............	469,587	533,074	489,469	506,134	521,951	598,700
Quebec......................	16,010,914	17,741,218	20,803,715	23,477,824	23,277,515	22,227,012
Ontario......................	8,841,010	9,635,697	10,181,711	10,308,673	10,538,574	10,736,742
Manitoba....................	1,747,628	1,926,696	2,080,810	2,223,725	2,232,855	2,283,789
Saskatchewan..............	175,889	196,341	211,557	232,195	243,884	249,517
Alberta......................	274,121	319,743	418,704	512,985	555,034	566,745
British Columbia and Yukon	2,137,788	2,472,848	2,639,289	2,623,971	2,630,409	2,850,367
Totals...............	**30,109,283**	**33,317,663**	**37,355,179**	**40,479,593**	**40,598,779**	**40,130,054**

Farm Service Furnished by Central Electric Stations.—Table 9 shows the number of farm customers, the average annual consumption, average annual revenue exclusive of the 8 p.c. Federal tax, and the average revenue per kilowatt hour sold to these customers in each province for 1945.

Effective Jan. 1, 1944, the Ontario Hydro-Electric Power Commission reclassified its rural customers, including under "farm customers" only farm contracts whereby one or more dwellings occupied by persons engaged in the operation of the farm would be counted as one customer. This classification excluded other rural dwellings, stores, garages, repair shops, etc., also small properties of five acres or less except under special conditions. This change in classification explains the apparent decrease in farms served as shown in previous years. The Ontario Government pays for part of the cost of installing services to farm customers, which accounts in part for the lower average revenue per kilowatt hour in Ontario as compared with the other provinces.

9.—Farm Service Furnished by Central Electric Stations, 1945

Province or Territory	Customers	Kilowatt Hours Delivered		Revenue Received		
		Total	Average per Customer	Total	Average per Customer	Average per kwh.
	No.	No.	No.	$	$	cts.
Prince Edward Island......	1,393	767,542	551	55,729	40·01	7·3
Nova Scotia................	8,989	4,630,706	515	206,686	22·99	4·5
New Brunswick............	7,517	2,343,568	312	181,824	24·19	7·8
Quebec......................	38,314	20,428,566	533	875,229	22·84	4·3
Ontario......................	67,526	140,626,396	2,083	2,672,196	39·57	1·9
Manitoba....................	1,236	1,382,940	1,119	62,576	50·63	4·5
Saskatchewan..............	417	303,949	729	29,236	70·11	9·6
Alberta......................	1,620	1,909,054	1,178	115,189	71·10	6·0
British Columbia and Yukon	3,066	4,419,418	1,441	143,705	46·87	3·3
Totals...............	**130,078**	**176,812,139**	**1,359**	**4,342,370**	**33·38**	**2·5**

Subsection 2.—Public Ownership of Central Electric Stations*

Water power is developed in Canada by provincial commissions, by municipalities and by private companies—hydro-electric plant. The first such provincial commission was formed in Ontario in 1906 to act as trustee for a group of municipalities to develop and distribute electricity. It now generates and purchases power, transmits it to urban municipalities, serves large power customers and distributes power in rural municipalities. Somewhat similar commissions have since been formed in each of the other provinces.

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* The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.

10.—Summary Statistics of Publicly Owned Central Electric Stations, 1930-45

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1930	166	862,158	5,156,788	1,454,014	1,658,087
1931	163	874,507	4,139,707	1,505,599	1,719,495
1932	170	881,054	3,713,841	1,610,024	1,824,010
1933	172	890,301	3,673,016	1,742,024	1,966,889
1934	171	899,617	5,136,241	1,743,074	1,963,979
1935	169	915,303	5,515,084	1,815,164	2,036,799
1936	171	938,117	6,887,057	1,944,189	2,173,030
1937	179	972,284	7,372,018	1,975,989	2,202,624
1938	183	1,014,115	6,665,837	2,013,169	2,176,793
1939	184	1,052,245	7,047,100	2,014,500	2,221,490
1940	181	1,088,415	7,822,013	2,022,285	2,227,203
1941	183	1,126,364	8,523,915	2,031,250	2,240,425
1942	188	1,140,499	9,177,792	2,134,845	2,344,310
1943	197	1,159,545	9,397,354	2,135,395	2,362,858
1944	202	1,484,784	14,910,198	3,092,295	3,335,268
1945	[1]	1,566,676	14,599,195	[1]	[1]

[1] Not available.

A large portion of the power development in Quebec is connected with pulp and paper plants and with the aluminum industry. There power plants are operated as separate organizations and deliver power to the parent companies at relatively low rates. Also, substantial blocks of power are produced in Quebec for export to Ontario.

Table **11** shows statistics of municipally or publicly owned central electric stations, by provinces, for 1945. Table **21** at p. 501 shows comparable statistics for commercial stations.

11.—Publicly Owned Central Electric Stations, by Provinces, 1945

Province or Territory	Power Plants[1]	Customers	Electric Energy Generated	Power Equipment[1]	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island	2	1,376	4,427	Nil	1,955
Nova Scotia	27	33,074	259,781	82,045	88,355
New Brunswick	6	42,539	121,442	12,860	39,620
Quebec	23	345,921	4,556,699	1,032,060	1,034,745
Ontario	74	898,293	8,536,402	1,801,660	1,797,840
Manitoba	8	84,383	684,497	155,000	157,290
Saskatchewan	41	51,018	166,526	Nil	109,896
Alberta	11	73,210	213,950	"	95,173
British Columbia and Yukon	10	36,862	55,471	8,670	10,394
Totals	**202**	**1,566,676**	14,599,195	**3,092,295**	**3,335,268**

[1] 1944 figures. Later statistics not available.

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies of the provincial electric power commissions, their functions and activities are summarized by provinces below.

Nova Scotia.—In 1909 legislation was first enacted in Nova Scotia relating to the use of water power in "An Act for the Further Assisting of the Gold Mining Industry". This was the most advanced legislation until the development of water power within the Province of Nova Scotia was initiated under the Acts of 1914 and carried on in an investigatory manner in co-operation with the Dominion Government until 1919, when the Nova Scotia Power Commission was created under the Power Commission Act. Certain investigatory work is still carried on in Nova Scotia by the Dominion Government through the Dominion Water and Power Bureau with which the Nova Scotia Power Commission is closely associated. The control of the water resources of the Province is vested in the Crown and administered under the provisions of the Nova Scotia Water Act of 1919. The Commission pays the regular fees for water rights.

The function and policy of the Commission is the supply of electric power and energy by the most economical means available. The Rural Electrification Act of 1937 greatly increased the possibilities for retail service. It provides for financial assistance to equalize cost and revenue of extensions, the construction of which have been approved by the Governor in Council as qualifying under the Act. In 1941, an amendment to the Power Commission Act authorized the Commission, subject to the approval of the Governor in Council, to regulate and control the generation, transformation, transmission, distribution, supply and use of power in the Province.

Financially, the Commission is self-supporting, repaying borrowings from revenue. The balance sheet at Nov. 30, 1946, showed fixed assets of $19,084,690, work in progress of $169,077, current assets $184,641, contingency and renewal reserves $2,189,878, sinking fund reserves $2,777,977 and special and general reserves of $1,232,868.

The initial development of the Commission was an 800-h.p. installation on the Mushamush River, which went into operation in 1921 and delivered 192,000 kwh. in the first complete year of operation. This and later developments are shown in Table 12.

12.—Present Developments with Initial Capacities of Undertakings of the Nova Scotia Power Commission

Development	Year in which Operations Commenced	Installed Capacity		Annual Output (Generation)	
		Initial	1946	Initial	1946
		h.p.	h.p.	kwh.	kwh.
Mushamush System	1921	800	1,030	208,752	1,343,800
St. Margaret System	1922	10,700	15,700	19,538,000	34,036,400
Sheet Harbour System—					
Malay Falls	1924	5,550	5,550	6,536,860	28,154,641
Ruth Falls	1925	6,290	10,590		
Mersey System—					
Original	1928	29,400	29,400	85,863,390	155,545,860
Cowie Falls	1938	10,200	10,200		
Tusket System	1929	2,820[1]	2,820[1]	3,680,540	7,775,778
Roseway System	1930	560	560	365,600	1,994,074
Markland System	1931	1,400	1,200	5,813,555	3,778,900
Antigonish System	1931	[2]	500	389,520	2,227,320
Canseau System, Diesel	1937	72	–	21,650	78,714
Totals	–	–	–	–	234,935,487
Canseau System, Steam	–	–	1,125[3]	–	4,437,280
Grand Total	–	–	–	–	**239,372,767**

[1] Minimum head. [2] Distribution system only. [3] Rated in kilowatts.

The nine systems comprised 1,836·37 miles of combined transmission and distribution lines and served 35 wholesale and 10,837 retail customers at Nov. 30, 1946. Nineteen generating stations and 38 generating units are in service with a total installed capacity of 77,924 h.p., and a steam installation of 1,125 kw. in two units. The total delivery to customers, which is somewhat variable, has reached 249,449,505 kwh. per year.

New Brunswick.—The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. Generating stations owned and operated by the Commission are as follows:—

Plant	*Type*	*Capacity*
		h.p.
Musquash	Water power	10,000
Grand Lake	Steam	26,800
Kouchibouguac	Water power	200
Grand Manan	Diesel	310
St. Quentin	Diesel	280
TOTAL CAPACITY		37,590

The Musquash, Grand Lake and Kouchibouguac plants are inter-connected and operate in parallel at all times.

Transmission Lines.—The transmission system consists of a 66,000-volt line from Musquash to Moncton, and five lines from Grand Lake, viz., two 33,000-volt lines to Fredericton, one 66,000-volt line to Newcastle, one 66,000-volt line to Moncton, and one 66,000-volt line from Coal Creek to Hampton.

Power is sold *en bloc* to the cities of Saint John, Moncton, Fredericton and the town of Sussex.

The statistical information given below shows the growth of the Commission's undertaking since 1924.

13.—Growth of the New Brunswick Electric Power Commission, Years Ended Oct. 31, 1924, and 1942-46

Item	1924	1942	1943	1944	1945	1946
High-voltage transmission lines........miles	138	342	344	348	348	348
Distribution line...... "	67	2,150	2,150	2,150	2,326	2,510
Indirect customers.... No.	11,561	21,500	Nil	Nil	Nil	Nil
Direct customers..... "	1,129	19,400	20,368	21,955	24,166	27,299
Plant capacities....... h.p.	11,100	27,260	27,260	32,510	37,590	37,590
Power generated......kwh.	15,500,000	91,000,000	103,800,000	115,524,000	122,508,320	131,315,745
Capital invested...... $	3,780,000	10,274,000	10,470,000	11,066,400	11,509,962	12,439,470
Revenue.............. $	310,000	1,605,900	1,741,800	1,899,500	2,024,468	2,181,272

Quebec.—The National Electricity Syndicate, 1937 (Geo. VI, c. 24), was established to develop electricity generating plants and distributing systems in the Province. It was abolished in 1940 (4 Geo. VI, c. 22) and its powers, duties, and contractual obligations were then transferred to the Quebec Streams Commission.

The Quebec Streams Commission.—Created in 1910 by 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (see R.S.Q., c. 46), by 20 Geo. V, c. 34 and by 4 Geo. VI, c. 22, the Commission was authorized to ascertain the water resources of the Province, to make recommendations regarding their control, to construct certain storage dams and operate them so as to regulate the flow of streams, and to undertake the direct production of electric power. The Commission has assisted companies engaged in such work by the systematic collection of data on the flow of the principal rivers and on the meteorological conditions, by investigation of numerous water-power sites and determination of the longitudinal profile of a large number of rivers, but mainly by the regulation of the flow of the principal power streams through the construction of storage dams. Early in 1942, the Quebec Streams Commission completed the construction of a 48,000-h.p. (3 units) generating plant at Rapid 7 on the Upper Ottawa River, at a cost of $9,600,000. About 16,000 h.p. is being supplied to the Noranda Mines. A fourth unit is to be installed when warranted and when the flow of the drainage area above Rapid 7 has been regulated. Act 4 Geo. VI, c. 22, conferring on the Quebec Streams Commission powers to undertake the direct production of electric power, was abolished in 1944 and the same powers were granted to the Quebec Hydro-Electric Commission by 8 Geo. VI, c. 22. By the said Act, the administration of the Hydro-Electric Plant at Rapid 7 was entrusted to the Quebec Hydro-Electric Commission.

From 1912 to 1925, a number of storage reservoirs were built or acquired, charges being made to benefiting companies to cover interest and amortization on the capital invested as well as the cost of operation. Since 1925, companies or persons have availed themselves of the latitude given them by R.S.Q., 1925, c. 46, s. 6, to build the necessary dams. Such storages, of which there were 28 in 1944, have been transferred to and are operated by the Commission, the cost of operation only being charged annually to the interested companies or persons.

Among the rivers controlled by the Commission either by means of dams on the rivers themselves or by controlling the outflow of lakes at their headwaters, together with the horse-power now developed, are: the St. Maurice, 1,026,050 h.p.; the Gatineau, 504,000 h.p.; the Lièvre 274,000 h.p.; the St. Francis, 100,000 h.p.; the Chicoutimi, 41,400 h.p.; and the Au Sable, 33,200 h.p. Most of these developments are capable of being extended to produce more power than is now installed.

Other storage reservoirs operated by the Commission are: the Lake Metis Reservoir, the Savane River and Lake Brûlé Reservoirs on Ste. Anne de Beaupré River, nine reservoirs on North River and one reservoir on Rivière-du-Loup (en bas).

Among storage reservoirs not controlled or operated by the Commission are: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, and the Onatchiway on the Shipshaw River. Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John Reservoirs, amount to over 1,500,000 h.p., since the Chute-à-Caron (Shipshaw) project has been completed.

The Quebec Hydro-Electric Commission.—The Quebec Hydro-Electric Commission was established by 8 Geo. VI, c. 22, with the object of supplying power to the municipalities, industrial or commercial undertakings and citizens of the Province of Quebec at the lowest rates consistent with sound financial administration.

On Apr. 15, 1944, in accordance with the provisions of this enactment, the Commission took over: (*a*) the undertaking of Montreal Light, Heat and Power Consolidated for the generating and distributing of electricity; (*b*) the undertaking of Montreal Island Power Company for the generating and distributing of electricity; and (*c*) all the shares of the capital stock of Beauharnois Light, Heat and Power Company. Thus, Quebec Hydro-Electric Commission acquired the control, among other assets, of the following hydro-electric plants:—

Hydro-Electric Plant	*River*	*Installed Capacity*
Cedars	St. Lawrence	200,000 h.p.
Chambly	Richelieu	9,000 h.p.
Sault-au-Récollet	Rivière-des-Prairies	45,000 h.p.
Beauharnois	St. Lawrence	680,000 h.p.

The Commission operates a public utility system which supplies electric light and power requirements to Greater Montreal and surrounding districts embracing a population of nearly 1,500,000.

From the Cedars Plant, electric energy is supplied to the Aluminum Company of America at Massena, N.Y., and through Beauharnois Light, Heat and Power Company power is sold to the Hydro-Electric Power Commission of Ontario. The quantities involved are in the neighbourhood of 100,000 h.p. to Massena, N.Y., and 250,000 h.p. to Ontario.

14.—Growth of the Quebec Enterprise, 1935-46

Year	Municipalities Served	Customers Served	Power Distributed	
			Total	Primary
	No.	No.	h.p.	h.p.
1935	61	266,744	540,000	405,000
1936	61	268,818	585,000	455,000
1937	61	271,274	600,000	480,000
1938	61	273,637	733,000	635,000
1939	61	277,010	773,000	676,000
1940	61	281,027	806,000	699,000
1941	61	285,648	892,000	784,000
1942	61	289,038	1,032,000	827,000
1943	61	293,005	1,044,000	942,000
1944	61	298,767	1,060,000	897,000
1945	61	305,049	1,045,000	883,000
1946	61	–	1,085,000	947,000

15.—Distribution of Primary Power to Systems, 1941-46

(Coincident with Montreal System peak)

System	1941	1942	1943	1944	1945	1946
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Montreal System	429,000	413,000	440,000	466,000	512,000	538,000
Beauharnois Local System	32,000	36,000	129,000	77,000	27,000	34,000
Beauharnois 25-cycle System (H.E.P.C. of Ontario)	200,000	250,000	250,000	250,000	250,000	250,000
Massena System	123,000	128,000	123,000	104,000	94,000	125,000
Totals	**784,000**	**827,000**	**942,000**	**897,000**	**883,000**	**947,000**

In addition to the ownership and operation of these generating and distribution systems, the Quebec Hydro-Electric Commission administers the 48,000 h.p. Upper River plant at Rapid 7. Primary power statistics for this Northern Quebec System (Cadillac-Noranda district) are as follows: 1941, 14,010 h.p.; 1942, 14,660 h.p.; 1943, 15,030 h.p.; 1944, 16,820 h.p.; 1945, 14,720 h.p.; and 1946, 15,750 h.p.

Ontario.—*The Hydro-Electric Power Commission.*—An account of the inception and operations of the Commission is given at pp. 377-378 of the 1940 Year Book.

To meet the constantly expanding power demands of the undertaking, the Commission has constructed its own generating plants, and has acquired several privately owned generating plants. Of the 55 hydro-electric power plants operated by the Commission in 1945, the largest was the Queenston-Chippawa development on the Niagara River, which was constructed by the Commission and has a normal operating capacity of 500,000 h.p. By the end of the War of 1939-45, provision for existing needs was made—including plants and power under contract for delivery—up to an aggregate of about 2,672,000 h.p.

Hydro-Electric Power Commission Statistics.—The Annual Reports of the Commission present in great detail descriptions and statistics of operation, construction, municipal work and transmission and distribution. The Commission exercises supervisory functions over the electrical utilities owned and operated by the partner-municipalities.

The initial capital expenditure required to serve about twelve municipalities amounted to approximately $3,600,000. At Oct. 31, 1945, the total capital investment amounted to $521,643,563, of which $375,361,480 were investments by the Commission in generating plants, transmission systems, etc., including electric railway and other properties operated by the Commission for the major systems under their control, and $146,282,083 were investments by municipalities in local distributing systems of their own, including other assets. Similarly, total reserves of the Commission and of the municipal electrical utilities for sinking fund, renewals, contingencies and insurance purposes amounted to $382,287,778, of which $252,283,473 represented reserves of the Commission and $130,004,305 of the municipalities.

16.—Growth of the Ontario Hydro-Electric Power Commission, Years Ended Oct. 31, 1931-45

Note.—Statistics for 1910-30 are given at p. 288 of the 1941 Year Book.

Year	Municipalities Served	Customers Served	Total Power Distributed	Capital of Commission and Assets of Municipal Utilities
	No.	No.	h.p.	$
1931	721	600,297	1,107,227	373,010,000
1932	747	611,955	1,108,037	382,558,000
1933	757	621,418	1,366,735	394,661,000
1934	760	624,801	1,451,699	398,225,000
1935	766	636,134	1,625,733	408,001,000
1936	782	649,517	1,509,667	413,710,000
1937	795	667,863	1,648,467	424,422,000
1938	821	694,400	1,831,216	436,822,000
1939	858	720,372	1,963,471	446,123,000
1940	886	748,232	1,954,069	449,038,000
1941	900	771,681	2,312,219	467,235,000
1942	902	785,564	2,265,796	483,333,000
1943	903	797,258	2,330,806	487,023,000
1944	904	818,085	2,416,157	492,831,000
1945	922	869,712	2,599,873	521,644,000

17.—Distribution of Power to Systems of the Ontario Hydro-Electric Power Commission, Years Ended Oct. 31, 1941-45

(20-minute peak horse-power-system, coincident peaks)

System and District	1941	1942	1943	1944	1945
	h.p.	h.p.	h.p.	h.p.	h.p.
Niagara System	1,682,975	1,676,273	1,738,606	2,043,646[1]	2,177,763
Georgian Bay System	47,407	45,276	48,189		
Eastern Ontario System	180,650	176,895	203,944		
Thunder Bay System	128,539	106,716	124,638	127,212	136,863
Manitoulin District	504	464	491	[2]	[2]
Northern Ontario Properties—					
Nipissing District	5,791	5,416	6,126	245,299[2]	285,247[2]
Sudbury District	19,597	20,909	19,670		
Abitibi District	230,965	222,788	180,563		
Patricia District	15,791	11,059	8,579		
St. Joseph District					
Totals	**2,312,219**	**2,265,796**	**2,330,806**	**2,416,157**	**2,599,873**

[1] These three systems combined are known now as Southern Ontario System. [2] Manitoulin District in 1944 and Timiskaming District in 1945, now part of the Northern Ontario Properties.

Statistics of Urban Municipal Electrical Utilities of Ontario Served by the Commission.—Statistics of the assets and liabilities of the electrical departments of urban municipalities served by the Hydro-Electric Power Commission show, for 1945, total assets of $221,284,434, as compared with liabilities of $16,277,777. Of the difference, $118,313,345 was allotted as reserves. In computing the percentage of net debt to total assets, the equity in Hydro systems is not taken into account. Between 1933 and 1945 total assets increased by $85,581,182 while total liabilities decreased by $33,642,977.

*Rural Electrical Service in Ontario.**—During past years substantial progress has been made in Ontario in the field of rural electrification, and the Commission's rural operations are now an important feature of its work. The Ontario Government, pursuant to its policy of promoting agriculture—a basic industry—contributes, in the form of 'grants-in-aid', 50 p.c. of the initial capital cost of distribution lines and equipment. In 1930, the Ontario Government passed legislation providing for advances up to $1,000 to actual farm owners of lands and premises in rural power districts for the installation of electrical wiring, the purchase of equipment and providing for the fixing of low maximum service charges for all classes of rural service.

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* Legislation passed concerning rural power is as follows: the Power Commission Act (R.S.O. 1937, c. 62); the Rural Hydro-Electric Distribution Act (R.S.O. 1937, c. 64); the Rural Power District Loans Act (R.S.O. 1937, c. 65); and the Rural Power District Service Charge Act (R.S.O. 1937, c. 66).

18.—Electrical Service to Rural Power Districts Operated by the Ontario Hydro-Electric Power Commission, Years Ended Oct. 31, 1941-45

Item		1941	1942	1943	1944	1945
Rural power districts	No.	184	120	120	120	121
Townships served	"	465	467	467	467	468
Customers	"	131,524	135,106	136,341	146,633	159,608
Primary distribution lines	miles	20,104	20,072	20,119	21,023	22,309
Power supplied	h.p.	88,796	84,032	88,878	100,514	128,345
Revenues from customers	$	5,179,552	5,484,475	5,618,695	5,666,392	6,094,010
Total expenses	$	4,965,343	5,348,154	5,297,242	5,235,814	5,795,063
Net surpluses	$	214,209	136,321	321,453	430,578	298,947
Capital invested	$	38,812,593	39,295,995	39,494,638	41,257,200	44,536,481
Provincial grants-in-aid[1]	$	*19,237,773*	*19,480,391*	*19,580,576*	*20,496,487*	*22,022,424*

[1] Included in "capital invested".

Manitoba.—The Manitoba Power Commission commenced its operations in 1919 under the authority of the Electrical Power Transmission Act. This Act empowered the Commission to make provision for generating electric energy, to enter into contracts for the purchase of power in bulk from generating agencies, and for its transmission and sale to municipalities, corporations and individuals. The first stretch of transmission line was completed in 1920 from Winnipeg to Portage la Prairie.

Power was purchased in bulk from the Winnipeg Hydro System for the first ten years. At the expiration of this period, the Seven Sisters Agreement between the Manitoba Government and the Winnipeg Electric Company provided for the reservation of a block of power for the Power Commission.

The Manitoba Power Commission Act of 1931 provided for the establishment of a three-member Commission. The new Commission reorganized the administration of the utility by cancelling bulk contracts and beginning service direct to the consumer and to municipalities and towns having contracts for street lighting only, thus making possible the adoption of a policy by which the Commission might eventually establish standard rates for all towns and villages regardless of distance from the source of supply or sparsity of population.

The tremendous expansion of the utility since 1931 shows the importance of this reorganization. In 1931 there were 56 cities, towns and villages on the System; over 200 communities were served in 1946. The revenue of the utility over the same period increased from $700,000 to over $2,000,000. Rate reductions, meanwhile, have reduced the average customer cost per kilowatt by 50 p.c. in the past 15 years.

The successful growth of the network to the majority of the cities, towns and villages of the Province, made it possible for the Commission to consider a project of extending electrical service to the farms.

The Manitoba Electrification Enquiry Commission appointed by the Government in 1942 to study the feasibility of farm electrification in the Province, reported that it would be practicable to bring electrical service to over 90 p.c. of the farms. The War prevented immediate execution of farm extension plans, but in 1945 sufficient materials were available to conduct a farm electrification test by which nearly 1,000 farms received electrical service. The success of the test led the Commission to plan extension at the rate of at least 5,000 farms annually. However, shortage of materials restricted 1946 construction to 1,500 farms and, for the same reason, it is expected that 1947 construction will be limited to 2,500 farms.

The Commission enters actively into the appliance merchandising field as a service to customers and as part of a load-building program designed to raise revenue by increasing consumption which, in turn, will permit the lowering of rates.

Saskatchewan.—The Saskatchewan Power Commission was established in 1929 under the Power Commission Act (R.S.S. 1940, c. 33) which authorized the Commission to manufacture, sell and supply electric energy, to acquire and develop water-power sites, to acquire or construct steam and oil plants, to construct transmission lines, to purchase power and to enter into contracts with municipalities for the supply of energy.

The Commission's main system is centred on its generating plant at Saskatoon. North Battleford and Swift Current also have generating plants owned and operated by the Commission. Electric energy is furnished in bulk to the city corporations, which own and operate their own distribution systems. In the town of Battleford, electric energy is supplied by the Commission, in bulk, by transmission line from the Commission's plant at North Battleford. In all the municipal corporations on its system (211 in number, including those on the former system of Prairie Power Company Limited), the Commission supplies approximately 20,654 individual consumers directly and 17,481 indirectly. In 1946, 2,387 miles of transmission lines were owned and operated, including those taken over from Prairie Power Company Limited.

During the years 1929 to 1945 the Commission purchased certain generating plants, and constructed and purchased transmission lines and also distributing systems in towns and villages. These were improved, enlarged or supplemented. Particulars of these acquisitions and constructions are given in the 1941 Year Book and subsequent editions.

In 1946 approximately 125 miles of transmission lines were constructed including the following: Webb to Gull Lake, Assiniboia to Willow Bunch, Estevan to Stoughton, Outram to Torquay, Expanse to Ardill, and Watson to Dafoe Airport, the last-mentioned line being part of a project including lines from Watson to Naicam and Watson to Quill Lake, which were under construction at the end of the year. The above-mentioned lines brought the villages of Willows, Readlyn, Verwood, Benson, Ardill and Torquay and the hamlets of Antelope, Expanse and Outram into the Commission's system and effected interconnection with the system of the Dominion Electric Power Limited at Estevan, Gull Lake and Assiniboia.

Short transmission lines from the cities of Regina and Saskatoon were built to serve three radio broadcasting stations. A short tap was also built from the town of Oxbow to serve the summer resort of Beaver Park.

Distribution systems were constructed in the subdivided areas of Highland Park, near Regina, North Annex and Churchill Downs (a veterans settlement), and service supplied with power purchased from the city of Regina. A short tap and distribution system were also constructed to serve the veterans settlement known as "Montgomery Place", near Saskatoon.

Of the 16 generating plants owned and operated by the Commission in 1946, those at Saskatoon and North Battleford were steam plants, and the remainder were equipped with compression-ignition engines. The total installed capacity of the generating plants was 32,713 h.p., There are no hydro-electric plants in the Commission's system, the primary power being: steam-reciprocating engines 530 h.p.; steam turbines 34,333 h.p.; and internal combustion engines 9,930 h.p. The Commission purchases several blocks of power from, and contracts for, the interchange of power with private interests.

Regina and Weyburn, as well as several towns and villages, own and operate municipal plants and distributing systems. There are two private corporations owning and operating electrical generating plants, transmission lines and distributing systems in the Province. Control and regulatory powers regarding franchises for the supply of electric energy and the rates to be charged therefor are conferred upon the Local Government Board by Part III of the Public Utilities Companies Act (R.S.S. 1940, c. 118). The Power Commission is charged with the administration of the Electrical Inspection and Licensing Act (R.S.S. 1940, c. 261), and is given certain control and regulatory powers regarding public electrical utilities under Part III of the Power Commission Act.

19.—Growth of the Saskatchewan Power Commission, 1929-46

Year	Municipalities Served		Customers Served		Total Power Generated	Total Power Purchased	Capital
	In Bulk	Directly	In Bulk	Directly			
	No.	No.	No.	No.	kwh.	kwh.	$
1929	Nil	2	Nil	[1]	[1]	Nil	1,902,005
1930	1	106	[2]	[3]	[3]	[3]	6,290,431
1931	3	117	[2]	8,324	46,040,000	1,414,420	7,287,827
1932	3	117	16,124	7,875	46,426,171	1,803,503	7,345,916
1933	3	123	16,124	7,574	44,401,494	1,674,444	7,411,986
1934	3	123	15,833	7,754	44,863,396	1,817,528	7,428,330
1935	4	123	13,644	8,219	46,889,172	1,986,105	7,504,726
1936	4	123	13,747	8,506	49,757,756	1,967,025	7,535,783
1937	4	126	13,513	8,620	49,165,813	1,918,473	7,609,910
1938	4	129	13,658	9,183	49,435,169	1,954,995	7,765,571
1939	4	129	13,606	9,467	55,055,958	2,085,702	8,174,141
1940	4	134	14,416	10,268	56,717,006	2,423,188	8,271,730
1941	4	136	14,416	10,542	65,225,001	2,019,107	8,511,974
1942	4	139	15,413	11,450	70,084,762	2,100,225	8,617,455
1943	4	139	16,677	12,197	79,565,860	1,921,440	8,748,856
1944	4	143	15,982	12,989	85,118,625	1,808,586	8,939,920
1945	4	203	16,341	18,034	87,248,840	3,098,450	10,661,321
1946	4	211	17,481	20,654	88,111,619	12,050,544	11,841,658

[1] The Commission's operations in the two towns served commenced in November, 1929. [2] Information not available. [3] The Commission's operations in most of the municipalities served did not commence until late in the year.

Alberta.—Public ownership of power-generating and distributing systems in Alberta is confined to certain urban municipalities. The regulatory authority over privately owned systems is the Board of Public Utility Commissioners, which has jurisdiction over the distribution and sale of electricity. The Board has general power to hold investigation upon complaint made either by a municipality or by a utility company and, following such investigation, may fix just and reasonable rates.

Three privately owned utilities are the chief sources of power for the municipalities. One has in operation 4 hydro-electric power plants totalling 91,000 h.p. on the Bow River and tributaries west of Calgary, with supplementary storage at Lake Minnewanka and Upper Kananaskis Lake totalling 240,000 acre feet. It operates, under lease, the city of Calgary's 14,000 h.p. steam plant, and has interchange arrangements and transmission-line ties with the city of Edmonton and the city of Lethbridge. Another utility supplies a number of towns and villages to the north and northeast of the city of Drumheller from a steam plant, and towns and villages north and east of the town of Vegreville from diesel-engine plants at Vegreville and Lloydminster; this utility also services the Grande Prairie district from a diesel-engine plant. A third utility services the town of Peace River and villages surrounding, from a diesel-engine plant situated at Peace River.

Edmonton generates power from coal and operates its own distribution system; in addition, there is a reciprocal arrangement with one of the privately-owned utilities for exchange of power at peak periods. Calgary and Red Deer own their distributing systems but purchase power from the same private source as Edmonton. Certain other large cities and towns such as Medicine Hat and Cardston own their power plants and those beyond reach of the three private utilities referred to above are served by other small privately owned power plants.

British Columbia.—Authority was given to the British Columbia Power Commission under the provisions of the Electric Power Act, assented to Mar. 28, 1945, to enter the public ownership field. The Commission has done so by acquiring the electrical system of the West Canadian Hydro Electric Corporation, operating a water-power plant at Shuswap Falls in the northern portion of the Okanagan Valley; the Nanaimo-Duncan Utilities Limited system, operating water-power plants and steam plant near Nanaimo, Vancouver Island; the British Columbia Electric Railway Company's system operating a water power and steam plant at Kamloops in the interior of the Province; the National Utilities Limited systems at Port Alberni, Parksville, Qualicum and Royston on Vancouver Island, operating a diesel plant at Port Alberni and purchasing electric energy for distribution at Parksville, Qualicum and Royston; and has also purchased several smaller privately owned utilities and municipal plants throughout the Province. The Commission has completed surveys on Campbell River, Vancouver Island, for the construction of a hydro-electric plant designed for an ultimate production of 150,000 h.p. The first phase of this development called for the construction of a head dam at Irene Pool, on Campbell River, and the installation of a 50,000-h.p. unit is well under way. Tenders have been called for the construction of a giant dam at Ladore Falls, which will provide ample storage for 100,000 h.p.

Grand Forks, Kaslo, Nelson, Prince George and Revelstoke each distribute electric energy generated by either fuel or water power, while Courtenay, Cranbrook, Fernie, Kelowna, Ladysmith, Merritt, New Westminster, the municipalities of Penticton and Summerland, the village of McBride and the Improvement Districts of Cranberry, Westview and Wildwood each purchase energy at wholesale rates and undertake distribution.

Subsection 3.—Private Ownership of Central Electric Stations

Summary statistics of privately owned central electric stations are given for the years 1930 to 1945 in Table **20**.

20.—Summary Statistics of Privately Owned Central Electric Stations, 1930-45

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment[1]	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1930	421	745,608	12,937,014	3,690,095	3,914,474
1931	396	756,285	12,191,139	3,916,720	4,171,305
1932	402	776,400	12,338,216	4,426,235	4,704,523
1933	403	776,581	13,665,974	4,563,973	4,842,686
1934	402	760,462	16,060,883	4,817,600	5,097,613
1935	397	779,400	17,767,949	4,992,805	5,274,174
1936	390	802,676	18,515,225	4,866,471	5,146,863
1937	389	833,711	20,315,627	5,047,253	5,336,811
1938	406	859,506	19,488,323	5,142,432	5,300,183
1939	427	889,418	21,285,710	5,226,483	5,385,632
1940	421	926,093	22,287,270	5,544,803	5,708,664
1941	424	954,906	24,784,691	5,753,150	5,917,160
1942	428	985,059	28,177,387	6,099,440	6,269,386
1943	425	1,009,603	31,082,239	7,069,774	7,239,936
1944	424	753,239	25,688,581	6,175,674	6,373,523
1945	[2]	766,554	25,530,857	[2]	[2]

[1] Exclusive of auxiliary equipment. [2] Not available.

The predominant position of Quebec in the electric-power field can be seen from the column in Table **21** showing electric energy generated. Of the total power generated in Canada by all central electric stations in 1945, 44 p.c. was generated by privately owned or commercial stations in the Province of Quebec; this percentage decreased from 57 in 1943 as a result of the taking over in 1944 of the Montreal Light, Heat and Power Company and the Beauharnois Power Company by the publicly owned Quebec Hydro-Electric Commission.

All stations in Ontario produce less than one-half as much power as the Quebec stations and only 20 p.c. of the total for Ontario stations is produced by privately owned stations.

21.—Privately Owned Central Electric Stations, by Provinces, 1945

Province	Power Plants[1]	Customers	Electric Energy Generated	Power Equipment[1]	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island	7	6,381	12,326	363	7,260
Nova Scotia	22	65,615	340,648	26,170	116,375
New Brunswick	8	28,588	477,258	94,150	111,630
Quebec	78	302,690	17,670,313	4,365,852	4,366,182
Ontario	60	65,284	2,200,339	538,572	538,853
Manitoba	14	36,570	1,599,291	353,300	354,524
Saskatchewan	104	30,557	82,992	[2]	59,070
Alberta	68	39,223	352,794	91,000	102,822
British Columbia and Yukon	63	191,646	2,794,896	706,267	716,807
Totals	**424**	**766,554**	**25,530,857**	**6,175,674**	**6,373,523**

[1] 1944 figures; later statistics not available. [2] Power generation in Saskatchewan is entirely by fuel plants. There is one hydro-electric station but the power is used in Manitoba and the statistics are included with those of Manitoba.

Subsection 4.—Export of Electric Power

Electric energy is exported from Canada only under licence and an export tax of 0·03 cents per kwh. is levied. The export duties for the fiscal years ended Mar. 31, 1943 to 1946 were $618,953, $641,253, $639,320 and $,694,518 respectively.

Exports for the calendar years 1943-46 are shown in Table **22**. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements from Quebec to New Brunswick and from British Columbia to Alberta.

The water allowed to be diverted at Niagara Falls for power purposes was increased by 5,000 cu. ft. per second to the Canadian side in November, 1940, owing to a diversion of water from Long Lake and the Ogoki River from the James Bay watershed to the Great Lakes watershed. In 1941 a further increase of 9,000 c.f.s. to the Canadian plants and 12,500 c.f.s. to the United States plants was permitted. This increased water with greater development of plants on the St. Lawrence River made possible the increased export of both firm and secondary power to the United States, mainly to plants producing war materials (5,000 c.f.s. will produce around 150,000 h.p. at the Queenston, Ont., plant).

22.—Electric Energy Exported from Canada, by Companies, 1943-46

Company	1943	1944	1945	1946
	kwh.	kwh.	kwh.	kwh.
Hydro-Electric Power Commission of Ontario	394,200,000	395,280,000	394,245,000	394,200,000
Hydro-Electric Power Commission of Ontario (surplus)	1,085,363,938	1,108,216,985	1,120,730,061	978,819,549
Canadian Niagara Power Company	314,512,111	312,033,481	322,722,441	324,484,986
Canadian Niagara Power Company (surplus)	30,214,300	64,931,100	99,409,843	93,806,074
Ontario and Minnesota Power Co	35,040,000	38,094,000	38,365,000	32,073,000
Maine and New Brunswick Electric Power Co.	30,889,205	29,195,321	40,384,249	32,185,886
Maine and N.B. Electric Power Co. (surplus)	Nil	Nil	Nil	1,690,473
British Columbia Electric Railway Co	206,320	248,520	273,050	323,260
Southern Canada Power Co	2,505,684	2,261,256	2,462,695	2,703,079
Quebec Hydro-Electric Commission[1]	643,037,269	627,047,466	618,842,478	614,992,847
Canadian Cottons, Ltd., Milltown, N.B	727,100	1,164,000	2,708,400	2,868,000
Fraser Companies, Ltd	6,885,000	5,293,000	4,574,000	1,288,000
Northport Power and Light Co	16,368	16,444	15,206	20,619
Northern B.C. Power Co	18,020	17,290	12,170	33,120
Detroit and Windsor Subway Co	283,300	292,200	291,800	328,100
Manitoba Power Commission	1,139,420	1,220,133	1,398,840	1,813,740
Totals	**2,545,038,035**	**2,585,311,196**	**2,646,435,233**	**2,481,630,733**

[1] Transferred from the Montreal Light, Heat and Power Co., April, 1944.

Section 3.—Power Equipment in Canadian Industry

The Dominion Bureau of Statistics has compiled tables showing the power equipment installed in the manufacturing and mining industries of Canada from 1923 to 1944. Table 24 gives the combined statistics for both industries from 1934. The figures for the 11 years show that primary power increased from 1,680,325 h.p. to 2,318,676 h.p. or by 38·0 p.c. while the installation of electric motors operated by purchased power shows an increase of no less than 61·6 p.c. In considering the increase in the latter figures, it must be borne in mind that the shift from belts and shafting to individual motors at each machine does not necessarily mean that an amount of power is used equivalent to the increased capacity.

Of the total primary power installed, manufacturing establishments accounted for 87·6 p.c. and mines for 12·4 p.c., while of the total electric motors operated by purchased power, manufacturing accounted for 86·6 p.c. and mining for 13·4 p.c.

The mining industry showed an uninterrupted increase in the amount of equipment operated by purchased power from 1933 to 1941; the total amount of power equipment installed showed a drop in 1932, but resumed the upward trend in 1933; the same is true of the capacity of total electric motors installed but that of motors operated by power generated within the establishment dropped sharply from 1930 to 1933 and did not attain a figure equal to the 1930 total until 1937, when a very sharp rise over the 1936 figure occurred. This would indicate a tendency of mining companies to rely more and more upon purchased power rather than to attempt to generate their own, a very natural tendency in northern Canada where water power is abundant and fuel scarce.

In manufacturing, a steady growth is indicated in total power equipment installed, total electric motors and in motors operated by purchased power. In the capacity of motors operated by power generated within the establishment, the figures fluctuated between 1929 and 1935 and from there rose steeply to a peak of 800,917 in 1942; later figures are slightly below that level.

23.—Percentage of Electric Rating to Total Power Equipment in the Manufacturing and Mining Industries, 1934-44

Note.—Figures exclude central electric stations and include idle and reserve equipment. Figures for 1923-33 are given at p. 295 of the 1941 Year Book.

Year	Total Power Equipment Installed	Electric Power	
		Total Motor Capacity	Per Cent of Total
	h.p.	h.p.	p.c.
1934	4,850,743	3,781,779	78·0
1935	5,019,958	3,889,366	77·5
1936	5,186,506	4,059,355	78·3
1937	5,562,772	4,411,974	79·3
1938	5,844,666	4,635,423	79·3
1939	6,071,557	4,883,670	80·4
1940	6,352,775	5,136,200	80·8
1941	6,963,218	5,624,681	80·8
1942	6,978,672	5,668,039	81·2
1943	7,404,308	5,981,280	80·8
1944	7,443,624	5,991,223	80·5

24.—Power Equipment Installed in Manufacturing and Mining Industries, 1934-44, with Details by Provinces and Industrial Groups, 1944

Note.—Totals for the years 1923-33 are given at p. 297 of the 1941 Year Book. Figures by provinces and industrial groups for each year since 1936 are given in the corresponding table in previous Year Books beginning with the 1939 edition.

Year	Steam-Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Total	Electric Motors Operated by Purchased Power	Total Power Equipment	Electric Motors Operated by Power Generated by Establishments Reporting	Total Electric Motors
	MANUFACTURING INDUSTRIES							
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Totals, 1934	**774,494**	**87,120**	**597,675**	**1,459,289**	**2,770,383**	**4,229,672**	**544,714**	**3,315,097**
Totals, 1935	**774,166**	**88,265**	**603,717**	**1,466,148**	**2,865,340**	**4,331,488**	**512,177**	**3,377,517**
Totals, 1936	**743,184**	**92,480**	**648,489**	**1,484,153**	**2,977,714**	**4,461,867**	**528,501**	**3,506,215**
Totals, 1937	**834,703**	**98,233**	**649,557**	**1,582,493**	**3,129,790**	**4,712,283**	**602,955**	**3,732,745**
Totals, 1938	**830,897**	**111,645**	**723,377**	**1,665,919**	**3,303,804**	**4,969,723**	**659,741**	**3,963,545**
Totals, 1939	**827,801**	**121,997**	**731,390**	**1,681,188**	**3,364,099**	**5,045,287**	**694,450**	**4,058,549**
Totals, 1940	**848,596**	**152,240**	**727,051**	**1,727,887**	**3,563,048**	**5,290,935**	**724,769**	**4,287,817**
Totals, 1941	**917,474**	**179,461**	**724,199**	**1,821,134**	**4,028,942**	**5,850,076**	**740,112**	**4,769,054**
Totals, 1942	**927,509**	**224,358**	**741,751**	**1,893,618**	**4,076,277**	**5,969,895**	**800,917**	**4,877,194**
Totals, 1943	**988,280**	**257,873**	**749,593**	**1,995,746**	**4,420,105**	**6,415,851**	**760,630**	**5,180,735**

24.—Power Equipment Installed in Manufacturing and Mining Industries, 1934-44, with Details by Provinces and Industrial Groups. 1944—continued

Year and Province or Group	Steam-Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Total	Electric Motors Operated by Purchased Power	Total Power Equipment	Electric Motors Operated by Power Generated by Establishments Reporting	Total Electric Motors
	MANUFACTURING INDUSTRIES—concluded							
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1944								
PROVINCE								
Prince Edward Island	1,291	998	1,423	3,712	1,162	4,874	Nil	1,162
Nova Scotia	70,407	15,727	14,946	101,080	91,980	193,060	65,400	157,380
New Brunswick	83,398	13,274	28,164	124,836	130,426	255,262	56,847	187,273
Quebec	214,660	61,408	325,623	601,691	1,686,492	2,288,183	176,475	1,862,967
Ontario	417,296	103,288	246,297	766,881	1,948,635	2,715,516	315,975	2,264,610
Manitoba	17,623	8,537	784	26,944	144,078	171,022	5,773	149,851
Saskatchewan	21,950	18,271	8	40,229	45,118	85,347	304	45,422
Alberta	31,876	18,791	624	51,291	94,170	145,461	6,150	100,320
British Columbia	155,055	47,470	111,347	313,872	295,225	609,097	152,793	448,018
Yukon and N.W.T.	59	548	Nil	607	10	617	Nil	10
Canada, 1944	**1,013,615**	**288,312**	**729,216**	**2,031,143**	**4,437,296**	**6,468,439**	**779,717**	**5,217,013**
INDUSTRIAL GROUP								
Vegetable products	107,183	49,045	26,659	182,887	325,186	508,073	52,949	378,135
Animal products	26,606	13,046	2,638	42,290	146,869	189,159	3,616	150,485
Textile products	28,022	5,320	23,685	57,027	220,277	277,304	30,984	251,261
Wood and paper products	537,854	145,063	604,760	1,287,677	1,557,565	2,845,242	509,685	2,067,250
Iron and its products	185,064	49,789	4,068	238,921	1,021,881	1,260,802	123,562	1,145,443
Non-ferrous metal products	26,812	6,548	55,550	88,910	567,754	656,664	22,651	590,405
Non-metallic mineral products	57,080	13,734	1,052	71,866	244,311	316,177	9,488	253,799
Chemicals and allied products	41,906	5,309	10,803	58,018	319,430	377,448	23,856	343,286
Miscellaneous industries	3,088	458	1	3,547	34,023	37,570	2,926	36,949
	MINING INDUSTRIES							
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Totals, 1934	**136,096**	**49,526**	**35,414**	**221,036**	**400,035**	**621,071**	**66,647**	**466,682**
Totals, 1935	**133,888**	**53,482**	**63,940**	**251,310**	**437,160**	**688,470**	**74,687**	**511,847**
Totals, 1936	**126,318**	**69,412**	**54,909**	**250,639**	**474,000**	**724,639**	**79,140**	**553,140**
Totals, 1937	**144,454**	**85,757**	**42,575**	**272,786**	**577,703**	**850,489**	**101,526**	**679,229**
Totals, 1938	**148,457**	**90,163**	**53,813**	**292,433**	**582,510**	**874,943**	**89,368**	**671,878**
Totals, 1939	**143,965**	**96,432**	**62,492**	**302,889**	**712,311**	**1,015,200**	**101,740**	**814,051**
Totals, 1940	**156,305**	**101,683**	**57,075**	**315,063**	**746,777**	**1,061,840**	**101,606**	**848,383**
Totals, 1941	**156,334**	**107,922**	**66,722**	**330,978**	**782,064**	**1,113,042**	**106,501**	**888,565**
Totals, 1942	**154,350**	**107,459**	**74,880**	**336,680**	**672,097**	**1,008,777**	**118,748**	**790,845**
Totals, 1943	**146,506**	**106,392**	**40,450**	**293,348**	**695,109**	**988,457**	**105,436**	**800,545**
1944								
Prince Edward Island	Nil	Nil	Nil	–	Nil	–	Nil	–
Nova Scotia	52,175	5,544	25	57,744	71,161	128,905	8,183	79,344
New Brunswick	1,510	2,178	75	3,763	1,846	5,609	227	2,073
Quebec	1,531	25,917	4,247	31,695	172,265	203,960	10,052	182,317
Ontario	2,811	29,950	2,725	35,486	262,934	298,420	6,978	269,912
Manitoba	140	1,237	Nil	1,377	24,215	25,592	90	24,305
Saskatchewan	1,745	5,239	"	6,984	63,717	70,701	2,447	66,164
Alberta	49,204	7,512	"	56,716	41,123	97,839	9,379	50,502
British Columbia	30,321	19,119	28,562	78,002	49,361	127,363	43,702	93,063
Yukon and N.W.T.	Nil	766	15,000	15,766	1,030	16,796	5,500	6,530
Canada, 1944	**139,437**	**97,462**	**50,634**	**287,533**	**687,652**	**975,185**	**86,558**	**774,210**

24.—Power Equipment Installed in Manufacturing and Mining Industries, 1934-44, with Details by Provinces and Industrial Groups, 1944—concluded

Year and Province or Group	Steam-Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Total	Electric Motors Operated by Purchased Power	Total Power Equipment	Electric Motors Operated by Power Generated by Establishments Reporting	Total Electric Motors
	MINING INDUSTRIES—concluded							
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1944								
Group								
Metals	25,991	38,611	35,117	99,719	456,017	555,736	55,762	511,779
Non-metals	110,152	41,521	12,720	164,393	199,674	364,067	28,596	228,270
Fuels	*107,442*	*19,768*	*12,000*	*139,210*	*125,796*	*265,006*	*24,316*	*150,112*
Other non-metals	*2,710*	*21,75*	*720*	*25,183*	*73,878*	*99,061*	*4,280*	*78,158*
Stone, sand and gravel	3,294	17,330	2,797	23,421	31,961	55,382	2,200	34,161
	COMBINED MANUFACTURING AND MINING INDUSTRIES							
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Totals, 1934	**910,590**	**136,646**	**633,089**	**1,680,325**	**3,170,418**	**4,850,743**	**611,361**	**3,781,779**
Totals, 1935	**908,054**	**141,747**	**667,657**	**1,717,458**	**3,302,500**	**5,019,958**	**586,864**	**3,889,364**
Totals, 1936	**869,502**	**161,892**	**703,398**	**1,734,792**	**3,451,714**	**5,186,506**	**607,641**	**4,059,355**
Totals, 1937	**979,157**	**183,990**	**692,132**	**1,855,279**	**3,707.493**	**5,562,772**	**704,481**	**4,411,974**
Totals, 1938	**979,354**	**201,808**	**777,190**	**1,958,352**	**3,886,314**	**5,844,666**	**749,109**	**4,635,423**
Totals, 1939	**971,766**	**218,429**	**793,882**	**1,984,077**	**4,087,480**	**6,071,557**	**796,190**	**4,883,670**
Totals, 1940	**1,004,901**	**253,923**	**784,126**	**2,042,950**	**4,309,825**	**6,352,775**	**826,375**	**5,136,200**
Totals, 1941	**1,073,808**	**287,383**	**790,921**	**2,152,112**	**4,811,006**	**6,963,118**	**846,613**	**5,657,619**
Totals, 1942	**1,081,859**	**331,808**	**816,631**	**2,230,298**	**4,748,374**	**6,978,672**	**919,665**	**5,668,039**
Totals, 1943	**1,134,786**	**364,265**	**790,043**	**2,289,094**	**5,115,214**	**7,404,308**	**866,066**	**5,981,280**
1944								
Prince Edward Island	1,291	998	1,423	3,712	1,162	4,874	Nil	1,162
Nova Scotia	122,582	21,271	14,971	158,824	163,141	321,965	73,583	236,724
New Brunswick	84,908	15,452	28,239	128,599	132,272	260,871	57,074	189,346
Quebec	216,191	87,325	329,870	633,386	1,858,757	2,492,143	186,527	2,045,284
Ontario	420,107	133,238	249,022	802,367	2,211,569	3,013,936	322,953	2,534,522
Manitoba	17,763	9,774	784	28,321	168,293	196,614	5,863	174,156
Saskatchewan	23,695	23,510	8	47,213	108,835	156,048	2,751	111,586
Alberta	81,080	26,303	624	108,007	135,293	243,300	15,529	150,822
British Columbia	185,376	66,589	139,909	391,874	344,586	736,460	196,495	541,081
Yukon and N.W.T.	59	1,314	15,000	16,373	1,040	17,413	5,500	6,540
Canada, 1944	**1,153,052**	**385,774**	**779,850**	**2,318,676**	**5,124,948**	**7,443,624**	**866,275**	**5,991,223**

Section 4.—Power Generated from Fuel

Fuel is used quite generally throughout the industrial field for the generation of power by means of steam- and internal-combustion engines. It is also used for the heating of plants and for providing the heat necessary to some manufacturing processes. The most important industries where heat is applied to materials to facilitate or accomplish a desired transformation are: foundries and machine shops; brick, tile, lime and cement works; petroleum refineries; the glass industry; distilleries; food preparation plants; rubber goods industry; etc. The figures of Table **25** cover fuel used for such heating purposes and for power. Fuels that constitute the raw materials to be transformed, such as coal in the coke and gas industries and crude petroleum in the refining industry and electricity used in metallurgical processes, such as in the electrolytic refining of non-ferrous metals, are excluded.

The value of fuel consumed in the manufacturing and mining industries in 1944 showed an increase of 71·5 p.c. over 1940. Of the 1944 fuel account, the requirements of Ontario amounted to 48·1 p.c. of the total, of Quebec 30·4 p.c., of British Columbia 6·8 p.c. and of Nova Scotia 5·0 p.c.

The iron and its products group used 21·1 p.c. of the fuel consumed by manufacturing industries, wood and paper products 18·7 p.c., non-metallic mineral products 16·8 p.c., non-ferrous metal products 14·9 p.c. and vegetable products 11·6 p.c.

Gas.—In southwestern Ontario, gas comes from natural gas wells, from light end gases sold by a Sarnia company which draws from a refinery in that city, and from the coke plants of the steel city, Hamilton. With the advent of greatly increased industrial activity in the Niagara Peninsula and the southern half of southwestern Ontario, the normal Ontario consumption of about 10,000,000,000 cu. ft. of natural gas per year rose to over 13,000,000,000 in 1940. At that time some natural gas fields completely played out, and others showed signs of exhaustion. At this peak capacity, insufficient gas was available to continue supplying industrial requirements and at the same time provide enough for household use.

When a crisis appeared imminent in 1942, the Power Control of the Department of Munitions and Supply arranged for the installation of new manufacturing facilities. These new facilities included some propane plants and a new coke oven and gas plant at Hamilton. Thirty-six ovens were completed by the spring of 1943, but even this added capacity was not enough and 18 more ovens were installed. With the completion of the 18 additional ovens in December, 1943, the situation eased somewhat. As a result of these various measures to expand production, the annual output of gas in southwestern Ontario rose by about 4,000,000,000 cu. ft.

25.—Cost of Fuel Used in Manufacturing and Mining Industries, 1934-44, with Details by Provinces and Industrial Groups, 1944

NOTE.—Includes fuel used for heating purposes, but not that used as raw material. Totals for 1922-33 are given at p. 300 of the 1941 Year Book. Figures by provinces and industrial groups for each year since 1936 are given in the corresponding table in previous Year Books beginning with the 1939 edition.

Year	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuel[1]	Total
	MANUFACTURING INDUSTRIES						
	$	$	$	$	$	$	$
Totals, 1934	23,140,344	1,670,877	5,182,216	1,450,553	5,734,229	1,549,086	38,727,305
Totals, 1935	23,988,177	1,921,138	5,981,169	1,419,130	5,707,589	1,773,040	40,790,243
Totals, 1936	26,584,200	1,883,025	6,381,311	1,421,076	6,583,603	1,962,450	44,815,665
Totals, 1937	33,916,705	5,169,524	8,580,369	1,636,098	7,404,919	2,867,421	59,575,036[2]
Totals, 1938	29,619,269	4,493,824	8,103,428	1,614,941	7,381,904	2,803,022	54,016,388[2]
Totals, 1939	31,022,811	4,870,875	8,560,418	1,562,119	7,891,892	3,155,016	57,063,131[2]
Totals, 1940	41,402,487	5,797,070	12,360,737	1,754,791	10,172,976	6,205,343	77,693,404[2]
Totals, 1941	54,493,713	6,388,464	17,734,137	1,896,184	12,554,559	9,819,759	102,886,816[2]
Totals, 1942	66,546,304	7,002,130	21,345,936	2,213,637	13,180,067	11,224,569	121,512,643[2]
Totals, 1943	75,400,290	7,260,866	22,402,629	2,469,573	15,198,110	11,272,877	134,004,345[2]

25.—Cost of Fuel Used in Manufacturing and Mining Industries, 1934-44, with Details by Provinces and Industrial Groups, 1944—continued

Year and Province or Group	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuel[1]	Total
	MANUFACTURING INDUSTRIES—concluded						
1944	$	$	$	$	$	$	$
PROVINCE							
Prince Edward Island	83,519	5,291	2,954	9,460	1	12,963	114,188
Nova Scotia	3,038,060	221,767	535,615	46,064	1,711,416	316,652	5,869,574
New Brunswick	3,717,939	35,238	173,400	121,775	30,166	305,117	4,383,635
Quebec	28,162,110	1,167,459	6,905,542	1,115,087	2,698,857	2,530,671	42,579,726
Ontario	37,542,032	5,396,155	10,606,796	508,617	10,254,870	4,066,643	68,375,113
Manitoba	2,449,464	115,934	294,079	173,316	219,817	323,511	3,576,121
Saskatchewan	988,677	1,453	507,502	69,984	407,263	242,222	2,217,101
Alberta	552,244	16,498	81,528	33,573	1,057,612	252,035	1,993,490
British Columbia	2,664,533	949,373	2,714,867	258,552	510,104	1,660,579	8,758,008
Yukon and N.W.T.	8,005	Nil	692	4,032	Nil	4,085	16,814
Canada, 1944	**79,206,583**	**7,909,168**	**21,822,975**	**2,340,460**	**16,890,106**	**9,714,478**	**137,883,770**[2]
INDUSTRIAL GROUP							
Vegetable products	10,431,738	583,644	501,813	710,515	1,731,193	2,052,314	16,011,217
Animal products	4,632,897	72,214	337,883	779,647	313,903	1,287,166	7,423,710
Textiles and textile products	5,751,740	16,391	190,060	61,264	77,779	188,942	6,286,176
Wood and paper products	21,129,024	31,283	1,868,249	212,123	177,746	2,354,063	25,772,488
Iron and its products	12,270,169	581,194	8,246,362	99,986	5,777,726	2,131,057	29,106,494
Non-ferrous metal products	10,880,038	4,468,228	4,098,614	26,797	658,798	344,304	20,476,779
Non-metallic mineral products	6,306,810	2,089,862	5,945,219	401,891	7,811,794	626,820	23,182,396
Chemicals and allied products	7,363,294	59,911	616,217	36,050	251,659	656,660	8,983,791
Miscellaneous industries	440,873	6,441	18,558	12,187	89,508	73,152	640,719
	MINING INDUSTRIES[3]						
	$	$	$	$	$	$	$
Totals, 1934	**2,989,478**	**9,833**	**611,978**	**484,044**	**187,989**	**318,497**	**4,601,819**
Totals, 1935	**2,977,569**	**12,726**	**631,883**	**544,460**	**194,183**	**327,224**	**4,688,045**
Totals, 1936	**3,234,692**	**9,232**	**1,158,742**	**674,498**	**228,304**	**416,181**	**5,721,649**
Totals, 1937	**3,648,370**	**15,352**	**1,623,004**	**794,171**	**471,103**	**623,435**	**7,175,435**
Totals, 1938	**3,315,338**	**6,955**	**1,493,826**	**553,361**	**343,081**	**614,770**	**6,327,331**
Totals, 1939	**3,471,368**	**38,541**	**1,564,970**	**506,050**	**732,678**	**593,268**	**6,906,875**
Totals, 1940	**3,589,675**	**78,320**	**1,639,327**	**544,201**	**947,723**	**756,358**	**7,555,604**
Totals, 1941	**3,886,157**	**113,093**	**1,593,714**	**613,999**	**650,809**	**1,015,647**	**7,873,419**
Totals, 1942	**4,280,928**	**114,306**	**1,515,674**	**716,135**	**980,236**	**1,001,295**	**8,608,574**
Totals, 1943	**4,637,526**	**116,384**	**1,506,865**	**729,907**	**792,357**	**909,747**	**8,692,786**
1944							
Prince Edward Island	Nil	Nil	Nil	Nil	Nil	Nil	-
Nova Scotia	1,333,545	132	5,435	294	32,032	28,909	1,400,347
New Brunswick	113,844	Nil	2,270	618	13,757	15,035	145,524
Quebec	1,118,633	1,926	226,862	155,211	Nil	300,294	1,802,926
Ontario	857,532	98,725	404,570	100,425	119,631	303,883	1,884,766
Manitoba	46,106	528	7,825	7,724	Nil	13,849	76,032
Saskatchewan	180,287	2,775	107,039	4,165	"	33,251	327,517
Alberta	434,213	Nil	29,962	2,689	879,066	103,528	1,449,458
British Columbia	681,450	967	259,641	124,630	Nil	82,832	1,149,520
Yukon and N.W.T.	1,060	112	21,963	25,724	"	14,168	63,027
Canada, 1944	**4,766,670**	**105,165**	**1,065,567**	**421,480**	**1,044,486**	**895,749**	**8,299,117**

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[1] Includes gasoline and kerosene. [2] Includes fuel used in smelters for metallurgical purposes.
[3] Not including fuel used in metallurgical operations, salt, cement, lime and clay products.

25.—Cost of Fuel Used in Manufacturing and Mining Industries, 1934-44, with Details by Provinces and Industrial Groups, 1944—concluded

Year and Province	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuel[1]	Total
	COMBINED MANUFACTURING AND MINING INDUSTRIES						
	$	$	$	$	$	$	$
Totals, 1934	**26,129,822**	**1,680,710**	**5,794,194**	**1,934,597**	**5,922,218**	**1,867,583**	**43,329,124**
Totals, 1935	**26,965,746**	**1,933,864**	**6,613,052**	**1,963,590**	**5,901,772**	**2,100,264**	**45,478,288**
Totals, 1936	**29,818,892**	**1,892,257**	**7,540,053**	**2,095,574**	**6,811,907**	**2,378,631**	**50,537,314**
Totals, 1937	**37,565,075**	**5,184,876**	**10,203,373**	**2,430,269**	**7,876,022**	**3,490,856**	**66,750,471**
Totals, 1938	**32,934,607**	**4,509,779**	**10,210,971**	**2,168,302**	**7,724,985**	**2,804,075**	**60,343,719**
Totals, 1939	**34,494,179**	**4,909,416**	**10,125,388**	**2,068,169**	**8,624,570**	**3,748,284**	**63,970,006**
Totals, 1940	**44,992,162**	**5,875,390**	**14,000,064**	**2,298,992**	**11,120,699**	**6,961,701**	**85,249,008**
Totals, 1941	**58,379,870**	**6,501,557**	**19,327,851**	**2,510,183**	**13,205,368**	**10,835,406**	**110,760,235**
Totals, 1942	**70,827,232**	**7,116,436**	**22,861,610**	**2,929,772**	**14,160,303**	**12,225,864**	**130,121,217**
Totals, 1943	**80,037,816**	**7,377,250**	**23,909,494**	**3,199,480**	**15,990,467**	**12,182,624**	**142,697,131**
1944							
Prince Edward Island	83,519	5,291	2,954	9,460	1	12,963	114,188
Nova Scotia	4,371,605	221,899	541,050	46,358	1,743,448	345,561	7,269,921
New Brunswick	3,831,783	35,238	175,670	122,393	43,923	320,152	4,529,159
Quebec	29,280,743	1,169,385	7,132,404	1,270,298	2,698,857	2,830,965	44,382,652
Ontario	38,399,564	5,494,880	11,011,366	609,042	10,374,501	4,370,526	70,259,879
Manitoba	2,495,570	116,462	301,904	181,040	219,817	337,360	3,652,153
Saskatchewan	1,168,964	4,228	614,541	74,149	407,263	275,473	2,544,618
Alberta	986,457	16,498	111,490	36,262	1,936,678	355,563	3,442,948
British Columbia	3,345,983	950,340	2,974,508	383,182	510,104	1,743,411	9,907,528
Yukon and N.W.T.	9,065	112	22,655	29,756	Nil	18,253	79,841
Canada, 1944	**83,973,253**	**8,014,333**	**22,888,542**	**2,761,940**	**17,934,592**	**10,610,227**	**146,182,887**

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[1] Includes gasoline and kerosene.

CHAPTER XVIII.—MANUFACTURES*

CONSPECTUS

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This Chapter deals with manufacturing industries in Canada in two main Parts. Part I gives general analyses of manufactures in the Dominion including: the historical development of manufacturing in Canada in so far as statistical data are available; production by industrial groups and individual industries, i.e., a detailed treatment of current production under various groupings and individual industries; general analyses of the principal factors in manufacturing production under such sub-headings as capital, employment, salaries and wages and size of establishment. Part II deals with the provincial and local distribution of manufacturing production.

With regard to the first Section of Part I, dealing with historical development, it is impossible to give absolutely comparable statistics over a long period of years. From 1870 to 1915, statistics were collected only in connection with decennial or quinquennial censuses, and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, while numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made to carry all major revisions, in so far as possible, back to 1917.

The far-reaching influence of the First World War was, of course, the outstanding factor in the growth recorded prior to 1940. It was during those years that Canadian manufactures began to develop on a really large scale. Munitions contracts totalled well over $1,000,000,000 exclusive of shipbuilding and aviation. Shipbuilding construction alone amounted to $35,000,000 in 1917, $75,000,000 in 1918 and $86,000,000 in 1919. In the same three years, employees in the shipbuilding industry numbered 12,000, 22,000 and 25,000, respectively.

Canada's effort in the Second World War brought manufacturing production to a much higher level than ever before. The ouptut of manufactured products in 1945 amounted to $8,250,368,866 which represented an increase of 137·4 p.c. over the pre-war year of 1939 but a decrease of 9·1 p.c. from 1944.

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* Revised under the direction of W. H. Losee, Director, Census of Industry and Merchandising Division, Dominion Bureau of Statistics, by A. Cohen, Chief, General Manufactures Section.

PART I.—GENERAL ANALYSES OF MANUFACTURING IN CANADA

Section 1.—Growth of Manufacturing

Subsection 1.—Production of Manufactured Products

This Section gives a picture of the growth of manufacturing, in general, as shown by comparable principal statistics, i.e., establishments, capital, employees, salaries and wages paid, cost of materials, and values of products. Other useful comparisons are made in Table 4 and figures of consumption are given in Table 5. Tables 6 and 7 show volume comparisons.

1.—Historical Summary of Statistics of Manufactures in Canada, 1917-45

NOTE.—Statistics of manufactures from 1870 have been published, but between that year and 1917 they are not on a comparable basis to the series given below. They will be found at p. 363 of the 1943-44 edition of the Year Book. Statistics of the non-ferrous metal smelting industries were included in manufactures for the first time in 1925.

Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products[1]	Gross Value of Products
	No.	$	No.	$	$	$	$
1917.........	21,845	2,333,991,229	606,523	497,801,844	1,539,678,811	1,281,131,980	2,820,810,791
1918.........	21,777	2,518,197,329	602,179	567,991,171	1,827,631,548	1,399,794,849	3,227,426,397
1919.........	22,083	2,670,559,435	594,066	601,715,668	1,779,056,765	1,442,400,638	3,221,457,403
1920.........	22,532	2,923,667,011	598,893	717,493,876	2,085,271,649	1,621,273,348	3,706,544,997
1921.........	20,848	2,697,858,073	438,555	497,399,761	1,365,292,885	1,123,694,263	2,488,987,148
1922.........	21,016	2,667,493,290	456,256	489,397,230	1,272,651,585	1,103,266,106	2,375,917,691
1923.........	21,080	2,788,051,630	506,203	549,529,631	1,456,595,367	1,206,332,107	2,662,927,474
1924.........	20,709	2,895,317,508	487,610	534,467,675	1,422,573,946	1,075,458,459	2,570,561,931
1925[2].........	20,981	3,065,730,916	522,924	569,944,442	1,571,788,252	1,167,936,726	2,816,864,958
1926[2].........	21,301	3,208,071,197	559,161	625,682,242	1,712,519,991	1,305,168,549	3,100,604,637
1927[2].........	21,501	3,454,825,529	595,052	662,705,332	1,741,128,711	1,427,649,292	3,257,214,876
1928[2].........	21,973	3,804,062,566	631,429	721,471,634	1,894,027,188	1,597,887,676	3,582,345,302
1929[2].........	22,216	4,004,892,009	666,531	777,291,217	2,029,670,813	1,755,386,937	3,883,446,116
1930[2].........	22,618	4,041,030,475	614,696	697,555,378	1,664,787,763	1,522,737,125	3,280,236,603
1931.........	23,083	3,705,701,893	528,640	587,566,990	1,221,911,982	1,252,017,248	2,555,126,448
1932.........	23,102	3,380,475,509	468,833	473,601,716	954,381,097	955,960,724	1,980,471,543
1933.........	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,954,075,785
1934.........	24,209	3,249,348,864	519,812	503,851,055	1,229,513,621	1,087,301,742	2,393,692,729
1935.........	24,034	3,216,403,127	556,664	559,467,777	1,419,146,217	1,153,485,104	2,653,911,209
1936.........	24,202	3,271,263,531	594,359	612,071,434	1,624,213,996	1,289,592,672	3,002,403,814
1937.........	24,834	3,465,227,831	660,451	721,727,037	2,006,926,787	1,508,924,867	3,625,459,500
1938.........	25,200	3,485,683,018	642,016	705,668,589	1,807,478,028	1,428,286,778	3,337,681,366
1939.........	24,805	3,647,024,449	658,114	737,811,153	1,836,159,375	1,531,051,901	3,474,783,528
1940.........	25,513	4,095,716,836	762,244	920,872,865	2,449,721,903	1,942,471,238	4,529,173,316
1941.........	26,293	4,905,503,966	961,178	1,264,862,643	3,296,547,019	2,605,119,788	6,076,308,124
1942.........	27,862	5,488,785,545	1,152,091	1,682,804,842	4,037,102,725	3,309,973,758	7,553,794,972
1943.........	27,652	6,317,166,727	1,241,068	1,987,292,384	4,690,493,083	3,816,413,541	8,732,860,999
1944.........	28,483	[3]	1,222,882	2,029,621,370	4,832,333,356	4,015,776,010	9,073,692,519
1945.........	29,050	[3]	1,119,372	1,845,773,449	4,473,668,847	3,564,315,899	8,250,368,866

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[1] In accordance with a resolution passed by the Conference of British Commonwealth Statisticians, 1935, the net value of production is now computed by subtracting the cost of fuel and electricity as well as the cost of materials from the gross value of the products. The figures for 1924 and later years have been revised in accordance with this resolution. The revision could not be carried farther back as statistics for cost of electricity are not available for years prior to 1924.

[2] A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted. The figures for 1931 and later years are, therefore, comparable with those for 1924 and earlier years.

[3] Not collected.

2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-45

Province and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products [1]	Gross Value of Products
	No.	$	No.	$	$	$	$
Prince Edward Island—							
1917	411	2,008,082	1,556	663,251	3,087,621	1,750,135	4,837,756
1920	370	2,328,686	1,287	855,210	4,164,223	2,135,857	6,300,080
1922	340	2,446,574	1,086	593,660	2,620,235	1,660,282	4,280,517
1929 [2]	263	2,646,354	2,074	727,286	2,862,725	1,466,446	4,408,608
1933	249	2,256,307	991	529,684	1,590,834	1,126,826	2,775,787
1937	240	2,637,472	1,062	607,547	2,386,091	1,117,298	3,566,991
1939	222	2,682,900	1,088	617,945	2,239,117	1,243,979	3,543,681
1940	219	2,940.818	1,057	645,800	2,518.233	1,270.233	3.856,544
1943	230	3,881,832	1,552	1,298,112	6,432,079	3,021,848	9,577,446
1944	241	[3]	1,786	1,694,763	6,993,510	3,570,835	10,713,644
1945	234	[3]	1,851	1,679,212	8,242,949	3,178,434	11,592,753
Nova Scotia—							
1917	,337	124,357,851	25,252	18,838,051	102,415,215	57,565,703	159,980,918
1920	1,345	135,679,188	23,425	25,625,089	85,724,785	61,371,243	147,096,028
1922	1,092	98,117,897	13,678	11,586,235	37,980,329	27,516,271	65,496,600
1929 [2]	1,094	118,951,398	19,986	16,905,885	50,725,562	35,676,421	89,787,548
1933	1,277	92,004,624	12,211	9,604,680	25,354,319	19,988,257	47,912,432
1937	1,135	94,756,601	18,088	16,727,338	46,964,053	33,146,796	84,393,656
1939	1,083	101,954,082	17,627	16,651,685	43,332,195	35,885,563	83,139,572
1940	1,155	111,652,959	21,062	21,519,617	62,160,537	46,548,446	113,814,650
1943	1,278	179,363,703	37,445	55,205,712	96,551,817	84,909,686	188,463,088
1944	1,281	[3]	37,812	59,940,411	103,463,123	93,376,638	204,421,664
1945	1,297	[3]	33,423	51,703,245	107,860,539	84,358,189	199,775,177
New Brunswick—							
1917	943	60,300,907	19,710	12,893,014	32,380,621	27,027,725	59,408,346
1920	901	101,216,395	19,007	19,266,821	60,812,641	45,803,164	106,615,805
1922	846	77,036,627	13,934	11,801,670	38,032,967	25,163,444	63,196,411
1929 [2]	803	91,376,948	17,952	15,127,716	39,800,366	26,640,786	68,145,012
1933	747	90,148,317	11,336	9,308,100	20,442,421	18,166,713	41,345,622
1937	805	89,797,597	15,612	14,563,310	36,983,284	28,770,727	69,479,207
1939	803	91,171,323	14,501	13,659,162	35,617,614	27,041,195	66,058,151
1940	777	93,108,166	16,859	17,639,789	46,939,404	38,253,475	89,281,008
1943	862	111,287,910	23,225	30,451,181	76,711,513	58,956,676	140,934,879
1944	937	[3]	23,164	32,345,080	83,993,599	62,258,478	152,106,577
1945	889	[3]	22,503	32,408,048	87,235,347	63,380,075	156,623,378
Quebec—							
1917	7,032	662,012,975	188,043	141,008,616	385,212,984	380,882,409	766,095,393
1920	7,530	878,859,638	183,748	202,516,550	553,558,520	499,643,217	1,053,201,737
1922	7,190	800,859,568	143,584	139,876,821	333,298,544	346,020,126	679,318,670
1929 [2]	6,948	1,246,208,650	206,580	225,226,808	537,270,055	537,796,395	1,108,592,775
1933	7,856	1,035,339,591	157,481	134,696,386	292,560,568	288,504,782	604,496,078
1937	8,518	1,117,772,721	219,033	216,971,207	562,889,160	445,885,666	1,046,470,796
1939	8,373	1,182,538,441	220,321	223,757,767	536,823,039	470,385,279	1,045.757,585
1940	8,381	1,345,927,911	252,492	277,639,876	713,132,575	595,552,909	1,357,375,776
1943	9,372	2,230,620,386	437,247	658,323,620	1,483,627,797	1,280,097,615	2,852,191,853
1944	9,656	[3]	424,115	668,156,053	1,494,253,053	1,350.519,134	2,929,685,183
1945	10,038	[3]	384,031	607,473,443	1,307,534,193	1,149,390,919	2,531,903,830
Ontario—							
1917	9,061	1,157,850,643	299,389	258,393,065	794,556,502	662,174,261	1,456,730,763
1920	9,113	1,464,097,346	295,674	362,941,317	1,071,843,374	792,267,562	1,864,110,936
1922	8,703	1,400,041,955	235,070	265,818,003	674,025,732	572,098,704	1,246,124,436
1929 [2]	9,348	1,986,736,556	328,533	406,622,627	1,056,530,202	916,971,816	2,020,492,433
1933	9,542	1,587,947,947	224,816	220,530,088	464,544,563	465,103,842	958,776,858
1937	9,796	1,674,806,201	321,743	373,018,048	1,025,871,741	804,703,114	1,880,388,188
1939	9,824	1,762,571.669	318,871	378,376,209	907,011,461	791,428,569	1,745,674,707
1940	10,040	1,988,461,940	372,643	479,399,188	1,236,738,529	1,004,529,583	2,302,014,654
1943	10,587	2,994,953,988	570,017	956,399,212	2,278,871,511	1,844,651,587	4,221,101,063
1944	10,731	[3]	564,392	975,038,060	2,310,347,858	1,930,043,913	4,339,797,784
1945	10,869	[3]	518,056	882,483,387	2,148,290,603	1,720,938,199	3,965,069,021

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[1] See footnote 1, Table 1. [2] See footnote 2, Table 1. [3] Information not collected.

2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-45 —concluded

Province and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products [1]	Gross Value of Products
	No.	$	No.	$	$	$	$
Manitoba—							
1917	732	82,566,858	18.939	16,513,423	69,715,149	42,280,801	111,995,950
1920	747	94,424,145	23,728	32,372,081	92,729,271	62,776,912	155,506,183
1922	697	65.172,676	13,076	16,853,345	54,373,811	36,842,899	91,216,710
1929 [2]	861	121,363,898	24,012	31,224,596	87,832,324	63,925,015	155,266,294
1933	1,010	100,074,404	18,871	18.687,430	44,579,998	37,390,275	83,934,777
1937	1,043	119,363,026	23,706	27,198,978	87,684,514	49,950,465	140,805,451
1939	1,087	119,659,365	23,910	28.444,798	82,408,293	48,810,544	134,293,595
1940	1,171	132,978,496	26,679	31,940.562	101,693,250	62,352,698	167,919,165
1943	1,245	173,752,507	37,003	53,841,825	200,464,756	99,146,670	304,867,912
1944	1,290	[3]	40,937	62,758,081	226,234,925	120,339,926	352,334,594
1945	1,302	[3]	38,367	59,814,109	216,114,576	117,775,126	339,821,283
Saskatchewan							
1917	560	24,372,585	6,230	5,403,332	22,040,674	13,894,179	35,934,853
1920	554	24,640,520	6,709	9,571,175	34,894.105	22,610,861	57,504,966
1922	490	22,734,469	3,494	4,734,885	22,366,129	13,186,266	35,552,395
1929 [2]	594	43,925,797	7,025	9,105.597	51,003,566	23,002,952	75,368,605
1933	673	38,688,433	4,782	4,848,763	19,124,030	11,478,634	31,559,387
1937	689	39,279,050	6,107	6,758,154	43,782,999	17,068,655	62,205,884
1939	737	37,654,095	6,475	7,346,127	38,782,135	20,283,273	60,650,589
1940	814	40,698,082	7,415	8,412,580	48,654,473	25,857,683	76,284,332
1943	976	60,674,093	11,683	16,445,866	111,193,185	37,895,459	152,123,360
1944	1,054	[3]	12,361	17,703,103	131,215.017	40,833,333	175,349,234
1945	926	[3]	11,617	16,905,606	126,279,202	38,275,127	167,688,133
Alberta—							
1917	636	49,146,241	9,461	8,662,417	42,632,212	23,883,673	66,515,885
1920	666	48,310,655	10,955	15,210,628	56,139,646	29,812,891	85,952,537
1922	556	41,154,178	6,516	8,293,572	30,189,648	18,939,659	49,129,307
1929 [2]	736	81,875.952	12,216	14,585,734	62,500,175	36,824,969	100,966,196
1933	874	69.604,563	9,753	9,573,468	29,425,975	18,876,929	49,395,514
1937	895	70,804,070	12,524	13.903,062	55,898,599	28,923,095	86,225,069
1939	961	73,284,225	12,712	14,977,700	53,151,149	32,618,153	87,474,080
1940	1,068	78,440,506	14,191	16,824,993	67,429,671	37,747,215	107,313.964
1943	1,133	111,682,419	20,613	29,494,369	142,057,051	65,796,813	211,159,142
1944	1,165	[3]	22,186	33,227,729	172,082,537	77,415,753	252,949,894
1945	1,157	[3]	21,486	32,760,326	166,198,136	78,547,626	248,287,504
British Columbia and Yukon—							
1917	1,133	171,375,087	37,943	35,426,675	87,637,833	71,673,094	159,310,917
1920	1,306	174,110,438	34,360	49,135,005	125,405,084	104,851,641	230,256,725
1922	1,102	159,929,346	25,818	29,839,039	79,764,190	61,838,455	141,602,645
1929 [2]	1,569	311,806,456	48,153	57,764,968	141,145,838	113,082,137	260,418,645
1933	1,552	263,195,652	28,417	28,469,225	70,166,220	59,034,923	133.879,330
1937	1,713	256,011,093	42,576	51,979,393	144,466,346	99,359.051	251,924,258
1939 [4]	1,710	274,969,502	42,554	53,881,994	136,655,872	103,263,292	247,948,600
1940 [4]	1,879	300,841,677	49,768	66,727,184	170,357,991	130,206,263	311,046.478
1943 [4]	1,961	450,360,048	102,221	185,711,773	294,445,005	341,699,478	652,046,313
1944 [4]	2,116	[3]	96,062	178,639,118	303,560,016	337,137,197	655,844,689
1945 [4]	2,326	[3]	87,974	160,419,133	305,759,836	307,954,519	628,903,124
Yukon and N.W.T.—							
1939	5	538,847	55	97,766	138,500	92,054	242,968
1940	9	666,281	78	123,276	97,240	152,733	266,745
1943	8	589,841	62	120,714	138,369	237,709	395,943
1944	12	[3]	67	118,972	189,718	280,803	489,256
1945	12	[3]	64	126,940	153,466	517,685	704,663

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[1] See footnote 1, Table 1. [2] See footnote 2, Table 1. [3] Information not collected.
[4] British Columbia only.

3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-45

Industrial Group and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products[1]	Gross Value of Products
	No.	$	No.	$	$	$	$
Vegetable Products—							
1917	4,151	279,627,827	62,777	45,915,557	367,214,061	183,782,501	550,996,562
1920	4,549	402,383,047	74,241	77,750,189	536,828,044	239,328,371	776,156,415
1922	4,638	379,567,139	64,753	66,228,286	333,295,009	210,835,301	544,130,310
1929 [2]	5,350	581,820,861	91,032	95,853,121	431,595,751	341,688,938	783,706,883
1933	5,916	522,389,736	75,416	68,535,349	226,879,373	196,820,952	432,315,617
1937	5,968	539,531,357	94,258	94,632,901	395,491,147	266,869,693	672,540,163
1939	5,872	539,446,225	99,447	104,248,785	356,726,153	292,129,840	659,624,014
1940	5,861	586,790,195	103,634	111,915,850	430,120,335	295,582,069	738,432,443
1943	5,913	684,292,303	117,243	157,733,379	635,042,582	410,340,183	1,062,561,932
1944	5,941	[3]	130,679	183,943,948	763,606,750	485,551,491	1,270,518,297
1945	5,862	[3]	135,311	196,010,688	802,367,469	529,112,219	1,352,986,147
Animal Products—							
1917	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
1920	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
1922	5,118	201,829,414	49,595	49,933,679	264,078,631	107,473,382	371,552,013
1929 [2]	4,490	243,825,065	67,670	62,081,423	345,351,882	127,929,857	477,761,855
1933	4,496	201,993,642	53,111	46,453,188	179,429,948	87,629,444	271,068,210
1937	4,435	230,312,163	67,996	64,816,361	326,537,087	118,117,971	449,783,908
1939	4,362	250,335,831	69,358	68,231,871	333,647,306	122,821,410	461,983,262
1940	4,250	261,794,531	73,666	75,226,038	398,487,114	141,233,679	546,336,264
1943	4,380	324,811,863	88,037	114,467,581	750,435,541	211,149,715	971,190,128
1944	4,388	[3]	94,195	129,215,389	835,586,247	246,064,720	1,092,015,647
1945	4,470	[3]	98,267	138,405,263	839,885,434	261,069,677	1,111,929,735
Textiles and Textile Products—							
1917	1,067	191,338,745	76,978	47,764,436	131,225,032	109,904,530	241,129,562
1920	1,304	302,758,185	87,730	84,433,609	256,233,300	173,741,035	429,974,335
1922	1,089	259,324,870	80,558	69,685,529	151,333,320	142,577,057	293,910,377
1929 [2]	1,534	360,762,584	103,881	94,969,433	217,954,088	180,469,064	403,205,809
1933	1,740	298,730,436	95,707	72,813,424	143,184,861	131,065,992	279,475,267
1937	1,941	322,204,180	121,677	105,056,051	219,813,775	174,076,945	400,383,726
1939	1,930	347,248,927	121,022	107,117,035	203,618,197	181,927,898	392,657,759
1940	1,958	394,493,058	138,973	133,136,316	298,656,288	240,338,903	547,451,110
1943	2,384	455,056,029	157,987	191,305,628	446,136,675	334,242,717	790,659,927
1944	2,481	[3]	153,122	195,805,681	419,988,642	351,186,488	781,771,688
1945	2,740	[3]	158,148	207,629,471	429,208,436	367,980,705	807,722,241
Wood and Paper Products—							
1917	7,263	536,320,247	152,277	113,359,997	148,277,935	245,372,487	393,650,422
1920	7,881	774,937,232	144,391	172,368,578	309,813,724	417,256,115	727,069,839
1922	6,966	761,020,831	118,364	132,092,249	206,860,089	283,006,200	489,866,289
1929 [2]	7,392	1,151,463,962	164,572	192,088,948	313,797,201	381,485,477	724,972,308
1933	7,891	892,652,622	105,080	102,218,652	134,663,641	184,233,540	341,336,701
1937	8,497	927,070,757	147,254	165,298,485	256,269,941	306,961,553	597,061,878
1939	8,538	960,804,672	144,782	165,287,455	246,292,820	303,662,441	579,892,183
1940	9,276	1,021,849,742	160,868	193,765,595	315,995,317	396,891,501	750,631,337
1943	9,974	1,103,984,216	183,865	264,844,792	447,399,954	508,835,982	1,001,563,243
1944	10,452	[3]	189,674	284,436,559	497,656,158	550,826,986	1,093,725,822
1945	10,653	[3]	199,373	306,179,416	551,143,890	586,057,023	1,184,650,720
Iron and Its Products—							
1917	1,495	695,677,552	161,745	161,875,424	378,193,116	371,792,489	749,985,605
1920	1,789	726,371,335	164,087	231,595,911	377,499,134	411,875,057	789,374,191
1922	1,083	567,011,222	78,565	95,443,053	171,529,909	170,769,391	342,299,300
1929 [2]	1,224	826,063,942	142,772	203,740,658	405,818,468	367,465,582	790,726,338
1933	1,334	614,632,403	73,348	72,296,179	98,793,191	109,198,169	216,828,992
1937	1,345	651,398,528	127,148	163,261,130	328,091,063	280,165,582	624,819,877
1939	1,394	697,893,720	121,041	158,559,728	262,292,781	275,774,796	553,468,880
1940	1,433	837,382,032	164,325	242,737,569	454,479,763	429,461,950	906,103,055
1943	2,044	1,852,506,052	435,744	833,383,684	1,131,858,008	1,396,768,112	2,575,976,547
1944	2,192	[3]	411,944	818,452,454	1,104,083,922	1,396,768,112	2,540,992,974
1945	2,188	[3]	321,719	637,335,990	887,425,621	1,046,097,484	1,975,310,083

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[1] See footnote 1, Table 1.

[2] See footnote 2, Table 1.

[3] Information not collected.

3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-45—concluded

Industrial Group and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products[1]	Gross Value of Products
	No.	$	No.	$	$	$	$
Non-Ferrous Metal Products—							
1917	296	69,421,911	18,220	15,898,890	46,445,469	41,039,351	87,484,820
1920	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,298
1922	325	102,208,275	18,222	21,451,629	30,861,895	39,993,798	70,855,693
1929[2]	408	298,721,106	39,867	54,501,806	124,900,632	150,415,215	283,545,666
1933	478	266,266,443	25,273	28,099,026	71,990,608	88,427,984	164,765,604
1937	526	306,522,643	44,614	57,722,728	282,532,128	182,968,223	482,440,562
1939	526	346,489,890	44,563	59,684,858	242,063,177	155,808,806	416,060,459
1940	545	425,766,853	54,317	75,655,811	307,808,225	210,352,784	540,781,367
1943	597	674,802,402	109,522	186,874,396	615,283,895	369,005,912	1,034,390,379
1944	635	[3]	104,314	182,909,292	549,317,062	399,498,519	992,345,975
1945	683	[3]	88,350	158,358,737	429,913,071	316,572,975	779,384,900
Non-Metallic Mineral Products—							
1917	1,075	145,423,082	20,795	18,224,724	36,994,392	58,092,396	95,086,788
1920	846	215,281,921	25,500	32,351,764	69,856,558	80,205,472	150,062,030
1922	812	230,486,004	20,932	25,401,278	60,671,305	74,022,607	134,693,912
1929[2]	843	316,692,818	29,257	38,958,390	112,573,103	99,065,847	229,774,300
1933	770	295,139,543	16,975	19,282,401	69,077,701	52,817,078	131,325,706
1937	823	287,473,542	23,837	30,389,958	115,938,578	77,667,225	208,205,148
1939	809	290,865,285	23,026	30,067,934	107,979,292	85,511,631	208,166,781
1940	804	309,092,155	25,415	34,897,235	139,312,380	97,693,069	255,624,328
1943	747	351,164,254	30,994	53,282,340	215,139,225	146,460,170	388,713,942
1944	748	[3]	31,590	56,130,338	234,714,319	152,525,053	416,268,879
1945	789	[3]	32,525	57,193,679	231,341,920	145,197,043	405,736,477
Chemicals and Allied Products—							
1917	539	175,836,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
1920	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
1922	469	118,025,483	14,082	16,770,503	37,650,061	48,981,277	86,631,338
1929[2]	554	165,886,912	16,694	22,639,449	55,184,337	78,785,911	138,545,221
1933	696	153,900,930	15,397	18,738,629	34,271,854	55,394,284	92,820,761
1937	754	161,165,068	21,968	28,612,719	64,460,947	79,290,240	148,973,220
1939	808	172,459,365	22,595	31,567,558	65,230,839	89,046,832	159,536,984
1940	804	213,610,510	27,682	38,640,990	82,534,474	104,121,900	193,890,338
1943	945	759,864,951	92,288	146,677,194	368,111,343	379,453,873	765,217,887
1944	981	[3]	81,822	137,422,977	360,412,749	355,260,598	733,569,232
1945	973	[3]	60,723	106,017,985	212,197,636	249,701,603	478,532,689
Miscellaneous Industries—							
1917	473	33,179,930	10,584	7,504,199	11,958,675	15,662,241	27,620,916
1920	552	48,637,071	13,442	14,613,455	23,465,807	27,841,778	51,307,585
1922	516	48,020,052	11,185	12,391,024	16,371,366	25,607,093	41,978,459
1929[2]	421	59,654,759	10,786	12,457,989	22,495,351	28,081,046	51,207,736
1933	459	33,554,083	8,351	7,810,976	9,497,751	14,083,738	24,138,927
1937	545	39,549,593	11,699	11,936,704	17,792,121	22,807,435	41,251,081
1939	566	41,480,534	12,280	13,045,929	18,308,810	24,368,247	43,393,206
1940	582	44,937,760	13,364	14,897,461	22,328,007	26,795,383	49,923,074
1943	668	110,684,657	25,388	38,723,390	81,085,860	60,156,877	142,587,014
1944	665	[3]	25,542	41,304,732	66,967,507	84,159,068	152,484,005
1945	692	[3]	24,956	38,642,220	90,185,370	62,527,170	154,115,874

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[1] See footnote 1, Table 1. [2] See footnote 2, Table 1. [3] Information not collected.

The figures in Table 4 trace the tendencies in Canadian manufacturing industries as clearly as possible through the latest period of their development. In analysing statistics of production and materials used, it should be borne in mind that, due to the inflation of values from 1914 through the immediate post-war period and the drop in prices of commodities during the depressions following 1921 and 1930, the figures for these periods are not completely comparable. One very important figure, however, which shows the trend of development clearly, is concerned with the use of power. The total horse-power employed increased from 1,658,475 in 1917 to 6,468,439 in 1944, an increase of about 290 p.c. In the same period, horse-power per wage-earner showed an interrupted trend from 3·06 to 10·82 in 1933 and 9·46 in 1939. With the large increase in the number of wage-earners on war production, and the more efficient utilization of the equipment available, the horse-power per wage-earner dropped to 6·28 in 1944. The significant feature is the increase in both the absolute figure of power employed and the averages per wage-earner during the depression years as compared with 1929, although the large numbers of persons again finding employment since 1933 reduced the averages for the years 1934 to 1937 and again for 1940 to 1943. Other interesting comparisons are the trend of value added by manufacture, per employee, and of average salaries and wages paid since 1929.

Subsection 2.—Consumption of Manufactured Products

One of the beneficial results of adopting the same classification for foreign trade and for production is exhibited in Table 5, where the value of commodities made available for consumption in Canada is derived from these statistics. For example, the value of all manufactured commodities made available in 1945 was $7,015,471,944, a figure obtained by adding to the value of manufactured products the value of the imports of manufactured and partly manufactured goods and deducting the value of the exports.

Before 1940, there had always been large amounts of manufactured animal, wood and non-ferrous metal products available for consumption in Canada with considerable surplus left for export. With the commencement of the War, however, it was necessary to export more and more of such goods to the United Kingdom, and while this was done mainly by increasing production, Government control of consumption at home grew stronger as the War advanced. In the case of manufactured vegetable products, the figures for 1945 showed large excesses of exports over imports for such products as cereal foods (including flour), canned and dehydrated vegetables, etc. Excesses of imports were chiefly confined to cocoa, tea, coffee and preserved fruits and fruit juices, in which cases domestic production cannot be substituted.

On balance, Canada, in the past, imported large quantities of iron and steel, textile and non-metallic mineral products in spite of large home production. The urgent requirements for munitions of war brought about an expansion of the iron and steel, chemical and non-ferrous metals industries that will enable Canada to meet most requirements for home consumption in the future.

4.—Summary Statistics of Manufactures, Significant Years, 1917-45

Item		1917	1920	1929[1]	1933	1937	1939	1943	1945
Establishments	No.	21,845	22,532	22,216	23,780	24,834	24,805	27,652	29,050
Capital	$	2,333,991,229	2,923,667,011	4,004,892,009	3,279,259,838	3,465,227,831	3,647,024,449	6,317,166,727	[2]
Averages, per establishment	$	106,843	129,756	180,271	137,900	139,536	147,028	228,452	[2]
Averages, per employee	$	3,848	4,882	6,009	6,997	5,247	5,542	5,090	[2]
Averages, per wage-earner	$	4,309	5,616	6,933	8,584	6,363	6,838	6,029	[2]
Totals, employees	No.	606,523	598,893	666,531	468,658	660,451	658,114	1,241,068	1,119,372
Averages, per establishment	"	27·8	26·6	30·0	19·7	26·6	26·5	44·9	38·5
Totals, salaries and wages	$	497,801,844	717,493,876	777,291,217	436,247,824	721,727,037	737,811,153	1,987,292,384	1,845,773,449
Averages, per establishment	$	22,788	31,843	34,988	18,345	29,062	29,744	71,868	63,538
Averages, per employee	$	821	1,198	1,166	931	1,093	1,121	1,601	1,649
Employees on salaries	No.	64,918	78,334	88,841	86,636	115,827	124,772	193,195	190,707
Averages, per establishment	"	3·0	3·5	4·0	3·6	4·7	5·0	7·0	6·6
Salaries	$	85,353,667	141,837,361	175,553,710	139,317,946	195,983,475	217,839,334	388,857,505	417,857,619
Averages, per salaried employee	$	1,315	1,811	1,976	1,608	1,692	1,746	2,013	2,191
Employees on wages	No.	541,605	520,559	577,690	382,022	544,624	533,342	1,047,873	928,665
Averages, per establishment	"	24·8	23·1	26·0	16·1	21·9	21·5	37·9	32·0
Wages	$	412,448,177	575,656,515	601,737,507	296,929,878	525,743,562	519,971,819	1,598,434,879	1,427,915,830
Averages, per wage-earner	$	762	1,106	1,042	777	965	975	1,525	1,538
Cost of materials	$	1,539,678,811	2,085,276,649	2,029,670,813	967,788,928	2,006,926,787	1,836,159,375	4,690,493,083	4,473,668,847
Averages, per establishment	$	70,482	92,547	91,361	40,698	80,814	74,024	169,626	153,999
Averages, per employee	$	2,539	3,482	3,045	2,065	3,039	2,790	3,779	3,997
Values added in manufacture[3]	$	1,281,131,980	1,621,273,348	1,755,386,937	919,671,181	1,508,924,867	1,531,051,901	3,816,413,541	3,564,315,899
Averages, per establishment[3]	$	58,646	71,954	79,015	38,674	60,760	61,724	138,016	122,696
Averages, per employee[3]	$	2,112	2,707	2,634	1,962	2,285	2,326	3,075	3,184
Gross value of products	$	2,820,810,791	3,706,544,997	3,883,446,116	1,954,075,785	3,625,459,500	3,474,783,528	8,732,860,999	8,250,368,866
Averages, per establishment	$	129,128	164,501	174,804	82,173	145,988	140,084	315,813	284,006
Averages, per employee	$	4,651	6,189	5,826	4,170	5,489	5,280	7,037	7,371
Power employed	h.p.	1,658,475	2,068,875	3,855,648	4,135,008	4,712,283	5,045,287	6,415,851	[4]
Averages, per establishment	"	76	92	174	174	190	203	232	[4]
Averages, per wage-earner	"	3·06	3·97	6·67	10·82	8·65	9·46	6·12	[4]

[1] A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. There was, therefore, a proportionate reduction in the averages for 1925-30 per employee and wage-earner, as compared with what these averages would have been under the other method. In 1931, however, the method in force prior to 1925 was re-adopted. The figures for 1931 and later years are, therefore, comparable with those for 1924 and earlier years. [2] Not collected. [3] Net values of products; see footnote 1, Table 1. [4] Not available at time of going to press.

5.—Consumption of Manufactured Products, 1928-45

Year	Value of Products Manufactured	Manufactured and Partly Manufactured Goods[1]		Value of Manufactured Products Available for Consumption
		Value of Net Imports	Value of Domestic Exports	
	$	$	$	$
1928	3,582,345,302	954,387,551	698,376,615	3,838,356,238
1929	3,883,446,116	939,130,201	686,876,071	4,135,700,246
1930	3,280,236,603	675,828,233	490,108,470	3,465,956,366
1931	2,555,126,448	423,519,849	347,456,198	2,631,190,099
1932	1,980,471,543	281,855,757	267,765,614	1,994,561,686
1933	1,954,075,785	298,068,344	365,232,113	1,886,912,016
1934	2,393,692,729	357,320,284	419,094,297	2,331,918,716
1935	2,653,911,209	385,597,041	582,041,141	2,457,467,109
1936	3,002,403,814	468,455,981	676,890,803	2,793,968,992
1937	3,625,459,500	566,876,483	781,099,407	3,411,236,576
1938	3,337,681,366	472,193,253	587,758,795	3,222,115,824
1939	3,474,783,528	542,364,930	646,853,938	3,370,294,520
1940	4,529,173,316	807,636,948	913,049,979	4,423,760,285
1941	6,076,308,124	1,123,994,913	1,292,855,603	5,907,447,434
1942	7,553,794,972	1,283,884,068	2,056,368,079	6,781,310,961
1943	8,732,860,999	1,305,838,746	2,444,862,298	7,593,837,447
1944	9,073,692,519	1,302,413,996	2,668,575,781	7,707,530,734
1945	8,250,368,866	1,117,544,874	2,352,441,796	7,015,471,944

[1] Imports and exports of manufactured and partly manufactured goods for the years 1928 to 1938 are for the fiscal years ended Mar. 31 of the following years, while for 1939 to 1945 they are for the calendar year. Net imports are total imports less foreign products re-exported.

Section 2.—Value and Volume of Manufactured Products

Value of Manufactured Products.—In the interpretation of manufacturing values over a number of years, variations in the level of prices must be borne in mind, especially when such variations have been as great as those in the period since the annual Census of Manufactures was begun in 1917. The index number of wholesale prices in Canada, on the 1926 base, compiled by the Dominion Bureau of Statistics, stood at 114·3 in 1917, 155·9 in 1920, 97·3 in 1922, 95·6 in 1929, 67·1 in 1933, 84·6 in 1937, 75·4 in 1939 and 102·5 p.c. in 1944. Index numbers of the prices of fully or chiefly manufactured goods were: 113·5 in 1917, 156·5 in 1920, 100·4 in 1922, 93·0 in 1929, 70·2 in 1933, 80·5 in 1937, 75·3 in 1939 and 93·6 in 1944.

Volume of Manufacturing Production.—Since real income is ultimately measured in goods and services, the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.

The index of volume (Table 6) is based on the quantities of manufactured products reported. The industry indexes are weighted according to the values added by manufacture. The indexes for the years 1923-31 are based on the values added in 1926. The weights and products were changed in 1931, in 1936 and again in 1941. By changing the weights and products used in the construction of the index every five years, current changes in production are thereby reflected more accurately.

The physical volume of manufacturing production increased 50·2 p.c. from 1923 to 1929. When it is recalled that the population of Canada is estimated to have increased only 11·3 p.c. during the same period, the growth of manufacturing production is indeed remarkable. Of this advance, the part resulting from an increase in the domestic demand due to growth of population would, therefore, be about 11·1 p.c. Exports of partly and fully manufactured goods increased from $591,830,000 in the fiscal year ended Mar. 31, 1924, to $686,876,000 in the fiscal year 1929-30, the increase in exports representing about 3·6 p.c. of the 1923 production. The remainder of the increase in production by 1929, or a margin equal to roughly 35 p.c. of the volume of manufactures of 1923, was, therefore, apparently absorbed by increases in capital equipment and by the rise in the standard of living of the population of Canada.

A similar analysis of the volume of manufactures since 1929 in relation to population and exports shows that the decline in the depression preceding the Second World War was due, chiefly, to reduced exports and a cessation in production of capital equipment. As a result of the expansion in production resulting from the demands created by the War, the physical volume of production in 1943, when production was at an all-time high, increased by 76·6 p.c. since 1939 and by 85·1 p.c. since 1929. The chemical and allied products group, with an increase of 262·5 p.c., reported the greatest expansion in output since 1939. This was followed by the iron and its products group with an increase of 222·2 p.c., non-ferrous metal products 129·9 p.c., miscellaneous industries 68·0 p.c., non-metallic mineral products 55·6 p.c., animal products 40·4 p.c., textile and textile products 33·7 p.c., vegetable products 24·6 p.c., and wood and paper products 21·4 p.c. There was also an increase in the volume of consumer goods. As was to be expected, the increase was not so great as that for the output of equipment and supplies needed by the Armed Forces. Drink and tobacco increased by 50·4 p.c., food 26·8 p.c. and clothing 24·7 p.c.

In 1944, the index of the physical volume of production at 180·8 represented a drop of 3·7 p.c. from the high mark of the previous year. Chemicals and allied products had the sharpest decline of 14·2 p.c., followed by non-ferrous metal products with 10·1 p.c., iron and its products 8·5 p.c. and textiles and textile products 2·9 p.c. The vegetable, animal, miscellaneous industries, wood and paper and non-metallic mineral products groups, on the other hand, each reported an increased volume of production. The volume of consumer goods continued to rise with the drink and tobacco group reporting an increase of 14·9 p.c., food 8·7 p.c. and clothing 0·6 p.c. Industrial equipment and producers materials were both down with declines of 7·5 and 4·8 p.c., respectively. Vehicles and vessels also declined by 0·9 p.c.

6.—Indexes of the Volume of Manufacturing Production, According to Component Material and Purpose Classifications, 1923-44

(1935-39=100)

Year	All Industries	COMPONENT MATERIAL CLASSIFICATION GROUPS								
		I	II	III	IV	V	VI	VII	VIII	IX
1923	67·5	62·6	75·0	64·3	65·1	81·5	42·7	81·8	59·2	99·5
1924	66·3	67·8	80·4	62·1	64·0	68·6	46·4	78·9	60·5	95·0
1925	72·5	75·1	84·8	66·5	69·0	79·9	52·5	80·3	64·8	94·5
1926	82·5	80·2	92·2	75·8	78·1	102·6	58·6	89·6	70·5	104·4
1927	87·9	84·9	90·0	81·4	84·1	104·1	67·6	102·3	75·2	114·2
1928	95·8	93·5	92·9	87·0	92·5	117·1	75·3	116·3	82·7	110·5
1929	101·4	96·4	87·9	86·1	99·6	133·4	81·3	137·1	84·8	105·6
1930	91·9	91·6	85·3	80·0	92·1	108·6	76·8	122·9	74·9	87·8
1931	79·9	83·4	77·4	78·2	76·6	82·8	73·1	105·6	69·2	80·0
1932	67·6	74·1	76·7	74·6	68·0	53·5	58·9	75·1	66·0	75·8
1933	67·7	72·8	79·6	81·1	69·6	50·2	57·6	68·8	69·9	71·9
1934	79·6	82·4	86·5	89·5	81·5	67·6	70·8	82·5	79·3	85·2
1935	87·9	87·0	91·3	94·5	89·5	83·4	81·2	88·1	87·2	91·1
1936	96·2	95·9	98·7	99·9	98·4	93·5	91·5	96·8	93·6	91·7
1937	108·9	104·5	102·7	106·0	109·6	118·1	110·1	111·3	107·3	106·6
1938	100·8	102·4	100·3	94·5	97·8	102·8	106·0	101·6	102·9	105·3
1939	106·3	109·0	107·2	104·9	104·4	101·9	111·1	105·1	108·9	110·7
1940	125·2	117·9	118·7	124·8	117·8	141·2	133·2	127·8	130·2	116·3
1941	155·9	137·2	138·2	143·1	131·3	217·1	165·4	148·8	219·6	157·4
1942	179·9	136·4	145·0	152·4	131·2	289·2	213·7	157·6	369·6	180·2
1943	187·7	135·8	150·5	140·2	126·7	328·3	255·4	163·5	394·8	186·0
1944	180·8	155·0	155·9	136·2	129·1	300·5	229·6	166·5	338·8	192·0

I. Vegetable products
II. Animal products
III. Textiles and textile products
IV. Wood and paper products
V. Iron and its products
VI. Non-ferrous metal products
VII. Non-metallic mineral products
VIII. Chemicals and allied products
IX. Miscellaneous industries

Year	All Industries	PURPOSE CLASSIFICATION GROUPS									
		I	II	III	IV	V	VI	VII	VIII	IX	X
1923	67·5	73·7	69·2	50·1	85·1	62·1	56·1	69·3	64·3	77·4	45·0
1924	66·3	79·0	69·3	57·4	81·2	69·4	46·8	65·8	64·2	67·4	47·1
1925	72·5	84·0	74·4	61·0	87·0	67·7	54·8	71·9	69·6	83·3	48·7
1926	82·5	87·0	83·5	65·9	99·6	78·7	60·3	81·6	84·3	108·3	52·9
1927	87·9	85·0	89·0	75·8	105·9	95·0	67·0	86·6	91·7	115·2	55·8
1928	95·8	90·2	96·0	86·0	106·5	98·3	74·1	95·7	101·6	122·6	60·0
1929	101·4	89·4	95·8	92·6	101·5	108·3	79·3	101·8	109·2	142·6	66·2
1930	91·9	91·0	88·5	86·3	84·1	98·8	78·7	90·7	97·0	115·6	55·5
1931	79·9	83·4	85·1	78·0	78·2	85·9	75·0	76·4	82·0	82·7	56·4
1932	67·6	80·6	77·8	67·0	70·3	70·7	76·9	61·2	63·7	56·8	52·6
1933	67·7	79·9	81·7	63·4	70·7	68·7	73·5	63·6	59·2	57·7	59·9
1934	79·6	87·8	87·7	72·7	79·5	79·1	83·6	77·3	73·8	76·6	72·8
1935	87·9	90·5	92·2	82·5	87·6	85·9	93·4	86·2	84·7	90·5	78·6
1936	96·2	98·8	97·9	90·9	94·3	95·4	96·3	97·0	94·9	94·3	87·2
1937	108·9	101·5	103·9	107·6	106·7	110·5	101·7	111·8	113·3	118·0	109·6
1938	100·8	102·4	97·9	107·5	103·0	101·6	103·8	98·0	102·0	99·9	109·1
1939	106·3	107·0	108·2	111·6	108·5	106·5	104·7	106·9	105·1	97·4	115·5
1940	125·2	115·0	119·9	129·7	115·1	120·5	102·8	128·7	138·7	129·5	180·3
1941	155·9	131·7	136·0	149·5	140·0	140·4	112·8	151·1	184·9	230·8	230·8
1942	179·9	130·6	142·7	171·2	144·6	149·4	106·6	172·3	222·8	310·2	430·9
1943	187·7	135·7	134·9	167·9	141·7	149·7	107·2	172·7	257·0	373·0	405·1
1944	180·8	147·5	135·7	193·0	143·9	153·6	110·7	164·4	237·6	369·5	362·4

I. Food
II. Clothing
III. Drink and tobacco
IV. Personal utilities
V. House furnishings
VI. Books and stationery
VII. Producers materials
VIII. Industrial equipment
IX. Vehicles and vessels
X. Miscellaneous

7.—Indexes of the Volume of Manufacturing Production for the Groups of the Purpose Classification, Significant Years, 1923-44

(1935-39=100)

Group and Classification	1923	1929	1933	1939	1942	1943	1944
Food	**73·7**	**89·4**	**79·9**	**107·0**	**130·6**	**135·7**	**147·5**
Breadstuffs	81·0	98·7	84·3	106·9	130·9	138·7	141·5
Fish	108·5	114·1	86·7	98·8	145·4	131·9	125·5
Fruit and vegetable preparations	32·9	70·8	64·5	109·9	123·0	107·0	151·3
Meats	72·7	78·5	76·2	106·0	153·1	165·3	196·6
Milk products	69·8	77·2	78·7	107·3	136·5	145·5	147·1
Oils and fats	52·0	40·9	41·9	156·4	296·4	314·0	321·2
Sugar	79·2	88·5	82·5	109·4	76·9	83·3	98·8
Infusions	64·4	75·0	82·5	105·8	145·3	156·2	172·6
Miscellaneous	46·5	67·4	66·5	110·4			
Clothing	**69·2**	**95·8**	**81·7**	**108·2**	**142·7**	**134·9**	**135·7**
Boots and shoes	73·0	100·6	80·0	113·4	114·1	107·9	112·6
Fur goods	41·1	97·6	81·0	118·3	157·5	169·7	171·1
Garments and personal furnishings	75·3	94·2	80·2	103·1	166·5	153·9	146·5
Gloves and mittens	59·2	84·0	76·4	100·4	166·4	167·1	179·7
Hats and caps	58·6	95·3	74·3	104·5	133·8	130·9	122·4
Knitted goods	64·8	86·1	83·1	112·4	124·0	118·2	119·5
Waterproofs	48·9	89·8	65·7	100·4	329·2	250·0	171·4
Drink and Tobacco	**50·1**	**92·6**	**63·4**	**111·6**	**171·2**	**167·9**	**193·0**
Beverages, alcoholic	49·5	105·9	60·5	102·8	179·2	165·8	199·3
Beverages, non-alcoholic	35·9	61·3	54·9	136·4	179·9	178·6	207·8
Tobacco	55·3	90·7	77·1	111·3	162·7	170·6	184·0
Personal Utilities	**85·1**	**101·5**	**70·7**	**108·5**	**144·6**	**141·7**	**143·9**
Jewellery and time-pieces	78·4	88·5	67·7	108·1	161·8	140·0	148·3
Recreational supplies	193·3	176·7	48·2	114·1	131·8	152·4	170·3
Personal utilities	56·1	79·8	78·1	107·5	139·6	142·6	139·8
House Furnishings	**62·1**	**108·3**	**68·7**	**106·5**	**149·4**	**149·7**	**153·6**
Books and Stationery	**56·1**	**79·3**	**73·5**	**104·7**	**106·6**	**107·2**	**110·7**
Producers Materials	**69·3**	**101·8**	**63·6**	**106·9**	**172·3**	**172·7**	**164·4**
Farm materials (fertilizers)	8·0	13·4	51·7	124·8	159·2	204·5	226·3
Manufacturers materials	58·7	88·1	64·4	105·6	167·8	169·1	159·7
Building materials	109·3	152·9	58·8	111·2	167·1	154·8	156·2
General materials	86·0	120·3	69·3	108·5	183·7	190·0	198·7
Industrial Equipment	**61·3**	**109·2**	**59·2**	**105·1**	**222·8**	**257·0**	**237·6**
Farming equipment	97·7	144·7	43·3	85·1	206·6	240·7	226·3
Manufacturing equipment	66·5	101·3	44·9	107·6	284·3	293·5	271·4
Trading equipment	55·2	77·2	80·0	107·7	Nil	Nil	Nil
Service equipment	67·7	75·8	72·5	100·4	166·2	317·8	240·0
Light, heat and power equipment	46·6	104·8	61·7	105·0	196·6	220·7	224·5
General equipment	74·2	114·4	58·5	106·4	260·5	292·8	256·5
Vehicles and Vessels	**77·4**	**142·6**	**57·7**	**97·4**	**310·2**	**373·0**	**369·5**
Miscellaneous	**45·0**	**66·2**	**59·9**	**115·5**	**430·9**	**405·1**	**362·4**
Totals, All Manufactures	**67·5**	**101·4**	**67·7**	**106·3**	**179·9**	**187·7**	**180·8**

Section 3.—Production by Industrial Groups and Individual Industries

For the purposes of the Census of Manufactures, the main detailed analysis is made under a classification in which industries are grouped according to the chief component materials of the goods manufactured. This is, therefore, the grouping used in Table 9, where the statistics of individual industries are presented in detail and in the historical series shown in Table 3. However, there are also less detailed analyses under purpose groupings given in Table **10** and under origin groupings in Table **12**.

THE AUTOMOBILE INDUSTRY IN CANADA*

Although Canada's automobile industry is now over 40 years old, it has become one of the major units in the economy of the Dominion. In value of products, in labour directly and indirectly employed, and in capital investment it ranks high among the manufactures of the nation and exercises far-reaching influence on the affairs of the people. In the period from 1917–45 the automobile and automobile-parts companies paid out more than $1,000,000,000 in salaries and wages and spent over $3,000,000,000 on manufacturing materials. Production to the end of 1945 totalled 4,500,000 complete cars worth $3,250,000,000 at factory prices. Meanwhile, automobile registrations in Canada increased steadily, except during the war years, numbering 1,500,000 in 1945, or an average of one car to every eight persons.

The Canadian industry is, to a large extent, an off-shoot of the industry in the United States where manufacturing methods in this field have reached their highest state of development; the leading concerns in Canada are branches of the parent organizations in the United States. It was in 1904 that the Ford Motor Company of Canada Limited was incorporated and commenced operations. Its original capital of $125,000 was subscribed by 60 shareholders and its charter gave it the right to make and sell Ford products in Canada and in practically all of the British Empire except the British Isles. It also acquired the right to use then-existing and all future patents, designs, inventions and trade marks of the Ford Motor Company of the United States. From 1904 to 1909, prior to the introduction of the Model 'T' Ford car, the Company operated on a very small scale, the total output during this period amounting to only 1,353 units. By 1925, the annual production had risen to 79,000 units and in 1939, the last pre-war year, it was 61,000 units. At that time, the Company had its main plant at Windsor, Ont., and assembly units at Winnipeg, Man.; Vancouver, B.C., and Saint John, N.B.

Another pioneer in the industry was the McLaughlin Motor Car Company Limited, Oshawa, Ont., which was formed in 1907 with contracts for the right to make Buick cars in this country. Chevrolet rights were also acquired in 1915 and three years later the enlargement of the two McLaughlin Companies was effected to form the General Motors of Canada Limited, a subsidiary of the General Motors Limited of the United States. Operations of this Company expanded steadily until output in 1925 totalled 44,000 units and in 1939 reached 54,000 units for the domestic and export markets. An assembly plant was opened at Regina, Sask., in 1929.

The other member of the "big three" of the present Canadian industry is the Chrysler Corporation of Canada Limited, which entered the Canadian field in 1925 to take over the Windsor factory of the Maxwell Chrysler Corporation of Canada Limited established in the previous year in succession to the Chalmers-Maxwell Motor Company of Canada. A few years later, about 1928, this Company absorbed the Dodge Motor Company Limited, which had operated in Canada from 1923. Continued growth has established this firm as one of the principal producers in the Dominion.

The above-mentioned concerns constitute the core of the industry, but numerous other plants have been in existence from time to time. Some of these were merely assembly units, branches of United States companies set up to take advantage of tariff preferences in the Canadian or Empire markets, others were on a larger and more permanent basis but failed to withstand the exigencies of this highly competitive industry. Willys-Overland Limited had a large works at Toronto, Ont., which operated continuously from about 1922 to 1933; Durant Motors of Canada Limited operated at Leaside, Ont., from 1922 to 1930, being taken over in the next year by Dominion Motors Limited which continued until 1933; and the Studebaker Corporation Limited had a substantial assembly plant at Walkerville, Ont., from 1922 until the beginning of the War. Other concerns in the passenger-car field included: Gray-Dort Motors Limited, Chatham, Ont., 1922-25; Graham Brothers, Toronto, Ont., 1926–28; Graham-Paige Motors (Canada) Limited, Walkerville, Ont., 1931–35; Hudson Essex of Canada Limited, Tilbury, Ont., 1931–37; Hudson Motors of Canada Limited, Tilbury, Ont., 1938–39; Packard Motor Car Corporation of Canada Limited, Windsor, Ont., 1931–37; and the Hupp Motor Car Corporation Limited, Windsor, Ont., 1939.

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* Prepared under the direction of W. H. Losee, Director, Census of Industry and Merchandising Division, Dominion Bureau of Statistics, by H. McLeod, Chief, Mining, Metallurgical and Chemical Section.

In addition to the Ford, General Motors and Chrysler companies, there are now three concerns making or assembling trucks in Canada. The International Harvester Company of Canada Limited, Chatham, Ont., has operated continuously since 1923; the Reo Motor Company of Canada Limited has recently started to make trucks and buses at Leaside, Ont.; and the Hayes Manufacturing Company Limited, Vancouver, B.C., makes heavy-duty trucks and logging trailers. Other concerns which at one time or another have made or assembled trucks in Canada are: the National Steel Car Corporation Limited, Hamilton, Ont., 1923–29; the White Company Limited, Montreal, Que., 1931–44; Eastern Motor Trucks, Hull, Que., 1922; Maple Leaf Manufacturing Company Limited, Montreal, Que., 1922; Barton and Rumble, London, Ont., 1922–23; Beaver Truck Builders Limited, Hamilton, Ont., 1922; Gotfredson Joyce Corporation, Windsor, Ont., 1922–29; Harmer-Knowles Motor Truck Company, London, Ont, 1922; Seagrave and Lougheed Company Limited, Sarnia, Ont., 1922–23; Canadian Yellow Cab Manufacturing Company, Orillia, Ont., 1924–25; Thornycroft (Canada) Limited, Montreal, Que., 1928–30; Trucks and Parts Limited, Windsor, Ont., 1929–30; Vancouver Engineering Works Limited, Vancouver, B.C., 1929; Leyland Motors Limited, Montreal, Que., and Toronto, Ont., 1931–37; Federal Truck Company of Canada Limited, Windsor, Ont., 1931-37; Gotfredson Trucks Limited, Windsor, Ont., 1931; and the Stewart Truck Corporation of Canada Limited, Fort Erie, Ont., 1932-35.

The Pre-War Industry.—In 1939 there were only eight companies manufacturing or assembling motor-vehicles in Canada. These concerns had seven plants in Ontario, two in British Columbia and one each in Quebec, Manitoba and Saskatchewan. They employed capital amounting to $59,000,000 and gave work to a monthly average of 14,427 persons to whom $20,500,000 was paid for salaries and wages. Their expenditure for fuel, electricity and materials for use in manufacturing totalled $72,500,000.

Output of automobiles in that year totalled 155,426 units valued at $99,173,916 at factory selling prices, including 108,369 passenger cars at $71,101,204; 47,057 trucks and commercial vehicles at $28,072,712. Parts, accessories and other products were valued at $8,289,435. Of the passenger cars, 75,145 units were intended for sale in Canada and 33,224 were for export; of the trucks, 24,058 were for the Canadian market and 22,999 were for export.

The pre-war record for the industry was established in 1929 when the 17 plants made 262,625 cars and trucks valued at $163,500,000 and parts at $13,800,000, a total value for the industry of $177,300,000.

The Industry During the War Years.—The production of military vehicles was one of Canada's biggest war jobs. The industry received its first military order—for gun tractors—in the autumn of 1939, and delivery of the first tractor was made in March, 1940. The initial contracts were for Canadian requirements, but before production was fully in its stride France had capitulated and the British Armies had been forced to abandon nearly all their equipment on the beaches at Dunkirk. It was then that Britain turned to Canada to replace these catastrophic losses. By 1941, Canada was the prime source of mechanized equipment for the British Commonwealth. Canadian-built trucks not only helped to bolster defences in the United Kingdom, but they played an important part in the East African campaign, in the reconquest of Abyssinia, in Italy, and later in France, Belgium and Holland.

At the high point of output, more than 100 different types of motorized military equipment poured from assembly lines of Canada's major automobile plants at the rate of 3,500 units of mechanized transport and 30 fighting vehicles per week. The list included universal carriers, scout cars, artillery tractors and trailers, troop transports, ammunition trucks, service workshops, radio trucks, fire trucks and ambulances.

To co-ordinate the work on military orders, a Motor Vehicle Controller was appointed in February, 1941, and to make possible the tremendous output of war essentials and to conserve raw materials, the manufacture of passenger cars was stopped in June, 1942, and trucks were placed on a permit basis. Output of vehicles in recent years was as follows:—

Year	*Civilian*		*Military*		*Total*	
	For Sale in Canada	*For Export*	*For Sale in Canada*	*For Export*	*For Sale in Canada*	*For Export*
	No.	No.	No.	No.	No.	No.
1938	109,128	56,958	Nil	Nil	109,128	56,958
1939	99,203	56,223	Nil	Nil	99,203	56,223
1940	124,384	67,197	23,418	8,014	147,802	75,211
1941	116,253	33,568	42,317	78,053	158,570	111,621
1942	16,360	10,185	86,139	115,609	102,499	125,794
1943	4,086	2	75,204	98,772	79,290	98,774
1944	8,979	134	57,034	91,891	66,013	92,025
1945	21,021	25,017	33,591	53,016	54,612	78,033

In addition, the automobile industry produced a tremendous volume of repair parts and accessories and also participated in other phases of the over-all war program, such as in the manufacture of gun carriages and gun parts. Employment in the industry increased from 12,997 in September, 1939, to a peak of 25,549 in December, 1942, and at the end of 1945 stood at 13,886. In value of output, the peak was reached in 1943 at $352,000,000. In 1945 the output value was $229,000,000.

The Industry at the Close of the War.—In 1945 there were only six plants in the automobile industry as follows: Chrysler Corporation of Canada Limited, Windsor, Ont.; Ford Motor Company of Canada Limited, Windsor, Ont.; General Motors of Canada Limited, Oshawa, Ont.; International Harvester Company of Canada Limited, Chatham, Ont.; Reo Motor Company of Canada Limited, Leaside, Ont., and Hayes Manufacturing Company Limited, Vancouver, B.C.

The assembly plants formerly operated by the Ford Motor Company at Toronto, Ont., Winnipeg, Man., and Vancouver, B.C. were closed during the War as was also the plant of the General Motors of Canada Limited at Regina, Sask.

For most of 1945, the industry was still occupied on military orders and it was not until October that the first post-war passenger car came off the assembly line. For the entire year only 1,868 passenger cars were produced, while the output of trucks totalled 130,777 units of which 85,677 were for military use. The total value of output in 1945, including automobile parts and other products, was $229,000,000, and the average employment was 17,915.

In early 1946 the post-war reconversion brought further important developments to the industry. The Studebaker Corporation of Canada Limited purchased the large plant at Hamilton, Ont., which had been used by the Otis Fensom Elevator Company Limited, for the manufacture of anti-aircraft guns during the War. This plant is being tooled up for the manufacture of cars on an extensive scale. The Canadian Car and Foundry Company Limited re-equipped its aircraft factory at Fort William, Ont., and is turning out transit-type buses. The White Company Limited is building an extensive truck plant at Montreal, Que., and the Reo Motor Company of Canada Limited has taken over part of the Research Enterprise Limited at Leaside, Ont., to make complete buses.

The Automobile Parts Industry.—In addition to the companies that make or assemble complete motor-vehicles, there is a large number of establishments occupied in making parts and accessories for use in these central assembly plants. In 1945, there were 108 works in this parts and accessories industry, and the value of production was $127,000,000. Output included such items as wheels, radiators, bumpers, bodies, spark plugs, starting motors, generators, springs, etc. Including tires, batteries and such other items as are made in other industries, the total output value of automobile parts and accessories was $245,000,000 in 1945 and $281,000,000 in 1944.

Apparent Supply of Automobiles, 1938-45.—The apparent supply of motor-cars for the Canadian market may be determined approximately by adding the number of cars made for sale in Canada to the imports and deducting the re-exports of imported cars. On this basis the supply in recent years, excluding military vehicles, works out as follows:

Year	*Passenger*	*Commercial*
	No.	No.
1938	99,202	24,938
1939	91,523	25,744
1940	109,874	54,792
1941	84,589	77,663
1942	8,914	94,619
1943	20	79,922
1944	30	69,229
1945	2,099	49,295

*Retail Sales of New Motor-Vehicles.**—Statistics on retail sales were not collected for 1944 and 1945 because distribution was under strict control and releases were made only for essential uses. Data for earlier years were as follows:

Year	*Passenger Cars*		*Trucks and Buses*	
	No.	$	No.	$
1938	95,751	105,006,462	25,414	30,005,446
1939	90,054	97,131,128	24,693	28,836,393
1940	101,789	114,928,833	28,763	33,916,445
1941	83,642	108,923,942	34,431	42,944,963
1942	17,286	23,899,745	13,070	18,979,777
1943	984	1,378,200	3,814	6,179,200

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* The figures shown in Table 22, p. 834 are not comparable with the above since the latter are total retail sales for the automotive group of industries which covers a much wider field than the sale of passenger and commercial cars.

Motor-Vehicles Withdrawn From Use.—The number of cars scrapped or withdrawn from use in any year may be estimated by adding the apparent supply to registrations in the previous year and deducting current year registrations. In this compilation it is not possible to eliminate military vehicles as they are included in registrations and a separate record is not available.

Year	*Apparently Withdrawn from Use*	
	Passenger Cars	*Commercial and Military*
	No.	No.
1938	42,610	7,350
1939	61,106	12,018
1940	65,258	28,881
1941	39,690	51,705
1942	71,500	82,005
1943	23,143	69,705
1944	16,319	60,867
1945	19,599	36,430

Canadian Automobiles in Foreign Trade.—*Exports.*—Foreign markets have been very important to Canada's automobile industry. In normal times from 30 to 35 p.c. of the passenger-car production and from 40 to 50 p.c. of the trucks are for the export trade. In 1939, the best markets were Australia, British South Africa, New Zealand, British India, Straits Settlements, British West Indies, the United Kingdom, Southern Rhodesia and British East Africa. Regular trade was interrupted, of course, during the War, but great numbers of military vehicles were shipped to the war areas and these are included in the following summary:—

Year	*Exports of Canadian-Made Cars*	
	Passenger	*Trucks*
	No.	No.
1938	40,386	17,382
1939	38,548	19,955
1940	18,145	66,047
1941	12,315	130,304
1942	5,283	159,377
1943	172	165,910
1944	62	144,151
1945	44	122,768

The value of exports of motor-vehicles was $207,000,000 in 1945 and $22,000,000 in 1939, and in addition $94,000,000 of parts were exported in the former year and $3,000,000 in the latter.

Imports.—In the immediate post-war years foreign-made cars accounted for about 15 p.c. of the Canadian market. Imports, mostly from the United States, were as follows:—

Year	*Imports of—*	
	Passenger Cars	*Trucks*
	No.	No.
1938	13,445	1,709
1939	16,585	1,699
1940	15,386	1,633
1941	2,909	799
1942	485	560
1943	104	712
1944	364	1,851
1945	549	1,542

Imports of automobiles amounted to $7,000,000 in 1945 compared with $16,000,000 in 1939; and automobile parts $72,000,000 in 1945 and $25,000,000 in 1939.

Registrations and Gasoline Consumption.—These subjects, which have an important bearing on the automobile industry, are dealt with in the Transportation Chapter at pp. 681 and 688.

Subsection 1.—Manufactures Grouped by Chief Component Materials

A classification based on the chief component materials in the various products of each manufacturing establishment was applied for the first time in the compilation of the returns for 1920. The number of groups was reduced from fifteen to nine to correspond with the foreign trade classification and the classes of industry were somewhat altered to conform with industrial developments. Subsequently, a number of minor changes were made, the most important being the elimination of central electric stations and the dyeing, cleaning and laundry industry from the compilation in 1936. Revisions due to these changes have been carried back to 1917 in so far as possible.

Recent Changes in Manufacturing Production.—Table 8 shows the effects of the depression, the recovery since 1933, and the impact of the Second World War upon the main groups of industries with regard to the numbers employed, the salaries and wages paid, and the gross value of products. Owing to the price decline during the depression, money values of both wages and products were naturally affected more than number of employees. Furthermore, during periods of curtailed production there is a tendency for wage-earners to be put on part time, while the number of salaried employees responds less quickly to reduction in output than that of wage-earners. Therefore, there are several reasons why the variation in number of employees should be less than that of money values. The figures of Table 8 are to be compared with those of Table 6 which show changes in volume of production. Compared with 1939, the number of employees in 1944 increased by 85·8 p.c. as compared with an increase of 70·1 p.c. in the physical volume of production. Salaries and wages paid were 175·1 p.c. higher and the gross value of production 161·1 p.c. higher. Another significant change is the increase in the proportion of women engaged in manufacturing. Whereas in 1939, there were 281 females to every 1,000 males employed, in 1944 this figure jumped to 403.

8.—Percentage Variation in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups Compared for Significant Years, 1929-44

NOTE.—The highest pre-depression year was 1929, while the lowest depression year was 1933.

Industrial Group	1933 Compared with 1929			1939 Compared with 1929			1944 Compared with 1939		
	Employees	Salaries and Wages	Gross Value of Products	Employees	Salaries and Wages	Gross Value of Products	Employees	Salaries and Wages	Gross Value of Products
Vegetable products	−17·2	−28·5	−44·8	+ 9·2	+ 8·8	−15·8	+ 31·4	+ 76·4	+ 92·6
Animal products	−21·5	−25·2	−43·3	+ 2·5	+ 9·9	− 3·3	+ 35·8	+ 89·4	+136·4
Textile products	− 7·9	−23·3	−30·7	+16·5	+12·8	− 2·6	+ 26·5	+ 82·8	+ 99·1
Wood and paper products	−36·1	−46·8	−52·9	−12·0	−14·0	−20·0	+ 31·0	+ 72·1	+ 88·6
Iron and its products	−48·6	−64·5	−72·6	−15·2	−22·2	−30·0	+240·3	+416·2	+359·1
Non-ferrous metals	−36·6	−48·4	−41·9	+11·8	+ 9·5	+46·7	+134·1	+206·5	+138·5
Non-metallic minerals	−42·0	−50·5	−42·8	−21·3	−22·8	− 9·4	+ 37·2	+ 86·7	+100·0
Chemicals	− 7·8	−17·2	−33·0	+35·3	+39·4	+15·2	+262·1	+335·3	+359·8
Miscellaneous products	−22·6	−37·3	−52·9	+13·9	+ 4·7	−15·3	+108·0	+216·6	+251·4
Averages, All Industries	**−29·7**	**−43·9**	**−49·7**	**− 1·3**	**− 5·1**	**−10·5**	**+ 85·8**	**+175·1**	**+161·1**

Detailed Statistics by Groups and Individual Industries.—Table **9** presents, for the year 1944, detailed statistics regarding the individual industries under which all industrial plants in the Dominion are classified. The industries are further assembled under nine main groups according to the principal component material of their products.

In interpreting the statistics of individual industries it should be remembered that the figures on employment, production, etc., do not refer to individual products but to all the products made in an industry. For example, the value of production of the biscuit and confectionery industry amounting to $86,011,499 in 1944 does not mean that this was the value of biscuits and confectionery produced. What it means is that the firms whose principal products were biscuits and confectionery had a value of production of $86,011,499. This figure, in addition to biscuits and confectionery, includes all the subsidiary products made by these firms, such as ice cream, which was valued at $1,558,335, and bread and other bakery products amounting to $4,092,076. Biscuits and confectionery are also produced as subsidiary products by firms credited to other industrial classifications. The bread and other bakery products industry, for example, reported an output of $270,401 worth of biscuits while the miscellaneous food industry reported $221,990 worth of confectionery. Quantities and values of principal individual products manufactured in Canada are given in Table **11.**

The incidence of the War resulted in a rearrangement in the rank of many industries. Industries producing supplies and equipment for the Armed Forces naturally advanced while those industries producing for the domestic consumer market declined in importance. To supply the raw materials needed by the industries engaged principally in war production, it became necessary to restrict or prohibit the manufacture of many products such as pleasure cars, radios, washing machines, electrical equipment, household appliances, agricultural implements, etc. Though these industries were forced to change over to wartime production, the changes did not affect the value of their output and, consequently, their importance as producers of manufactured goods did not alter drastically. To analyse the effects of the War on any industry, it is necessary to compare the nature of its pre-war products with those produced during the war years. For example, the number of employees engaged in the agricultural implements industry increased by 7,196 between 1940 and 1944; this in spite of the fact that the output of agricultural implements remained at about the same level. The increase was due to a change-over of some of the plants to war production. It is, therefore, impossible to trace industrial trends from the principal statistics alone, as published in this Chapter.

9.—Statistics of the Establishments, Employees, Salaries and Wages, Power, Fuel,

	Province, Industry and Group	Establishments	Employees on Salary			Employees on	
			Male	Female	Salaries	Male	Female
		No.	No.	No.	$	No.	No.
	PROVINCE						
1	Prince Edward Island	241	274	90	340,735	956	466
2	Nova Scotia	1,281	3,357	1,393	8,038,033	28,059	5,003
3	New Brunswick	937	2,393	910	5,927,148	15,829	4,032
4	Quebec	9,656	43,613	19,537	136,345,080	254,412	106,553
5	Ontario	10,731	58,832	35,547	214,556,603	330,502	139,511
6	Manitoba	1,290	4,504	2,153	12,970,760	24,737	9,543
7	Saskatchewan	1,054	2,169	885	4,629,279	7,562	1,745
8	Alberta	1,165	2,855	1,272	7,292,403	13,912	4,147
9	British Columbia	2,116	8,840	3,912	27,933,075	68,622	14,688
10	Yukon and Northwest Territories	12	21	1	32,478	44	1
	Canada	**28,483**	**126,858**	**65,700**	**418,065,594**	**744,635**	**285,689**
	INDUSTRIAL GROUP						
1	Vegetable products	5,941	16,912	7,701	49,702,771	65,788	40,278
2	Animal products	4,388	11,588	5,026	31,018,679	53,797	23,784
3	Textiles and textile products	2,481	10,924	6,851	44,529,327	51,284	84,063
4	Wood and paper products	10,452	26,744	10,239	70,547,540	128,117	24,574
5	Iron and its products	2,192	33,745	19,657	123,083,083	308,747	49,795
6	Non-ferrous metal products	635	10,643	6,469	39,496,337	61,300	25,902
7	Non-metallic mineral products	748	3,840	1,560	12,458,871	22,964	3,226
8	Chemicals and allied products	981	8,742	5,971	34,080,087	41,045	26,064
9	Miscellaneous industries	665	3,720	2,226	13,148,899	11,593	8,003
	1.—Vegetable Products—						
1	Aerated and mineral waters	445	1,055	435	3,154,011	3,688	621
2	Biscuits, confectionery, cocoa, etc	219	1,801	793	5,969,940	4,244	7,422
3	Bread and other bakery products	2,917	3,209	1,212	6,531,441	16,090	7,019
4	Breweries	61	1,241	327	4,410,331	4,952	605
5	Distilleries	17	412	207	1,777,390	1,567	994
6	Flour and feed mills	1,087	1,653	553	3,341,467	4,768	315
7	Foods, breakfast	29	115	69	376,579	455	287
8	Foods, stock and poultry	206	636	296	1,667,503	2,182	125
9	Foods, miscellaneous	269	1,339	682	4,191,543	1,855	3,009
10	Fruit and vegetable preparations	458	1,204	637	3,432,826	6,622	6,905
11	Ice cream cones	6	12	10	35,617	32	62
12	Macaroni, vermicelli, etc	16	51	25	166,914	210	208
13	Malt and malt products	11	58	31	249,130	362	8
14	Rubber goods, including rubber footwear	56	2,240	1,285	7,793,127	12,358	5,538
15	Starch and glucose	8	114	84	443,316	659	152
16	Sugar refineries	11	294	116	1,078,829	1,787	393
17	Tobacco, cigars and cigarettes	69	1,164	825	3,978,152	2,634	5,964
18	Tobacco processing	13	147	32	479,114	520	494
19	Vegetable oil mills	11	49	26	153,759	380	7
20	Wine	30	104	51	408,465	377	150
21	All other industries	2	14	5	63,317	46	Nil
	Totals, Vegetable Products	**5,941**	**16,912**	**7,701**	**49,702,771**	**65,788**	**40,278**
	2.—Animal Products—						
1	Animal oils and fats	8	18	9	60,162	90	Nil
2	Belting, leather	18	51	28	181,759	156	35
3	Boot and shoe findings, leather	21	52	21	164,552	448	265
4	Boots and shoes, leather	228	1,497	634	4,947,699	8,968	7,539
5	Butter and cheese	2,282	3,440	1,618	6,550,880	11,935	1,629
6	Cheese, processed	22	120	76	363,140	332	587
7	Condensed milk	26	137	75	413,443	958	139
8	Dairy products, other	88	139	75	349,761	320	97
9	Fish curing and packing	535	985	233	1,861,835	6,130	2,316
10	Fur dressing and dyeing	18	115	45	372,914	754	315
11	Fur goods	517	945	376	2,735,273	1,915	1,725
12	Gloves and mittens, leather	67	203	90	548,850	824	1,723
13	Hair goods, animal and human	16	26	10	104,910	156	81
14	Leather tanneries	75	348	133	1,563,094	3,508	483
15	Miscellaneous leather goods	241	556	220	1,629,879	1,970	2,173
16	Sausage and sausage casings	73	85	24	176,643	283	90
17	Slaughtering and meat packing	153	2,871	1,359	8,993,885	15,050	4,587
	Totals, Animal Products	**4,388**	**11,588**	**5,026**	**31,018,679**	**53,797**	**23,784**

Materials, and Values of Products of Canadian Manufacturing Industries, 1944

Wages	Total Employees	Total Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Value of Products		
Wages					Net	Gross	
$	No.	$	$	$	$	$	
1,354,028	1,786	1,694,763	149,299	6,993,510	3,570,835	10,713,644	1
51,902,378	37,812	59,940,411	7,581,903	103,463,123	93,376,638	204,421,664	2
26,417,932	23,164	32,345,080	5,854,500	83,993,599	62,258,478	152,106,577	3
531,810,973	424,115	668,156,053	84,912,996	1,494,253,053	1,350,519,134	2,929,685,183	4
760,481,457	564,392	975,038,060	99,406,013	2,310,347,858	1,930,043,913	4,339,797,784	5
49,787,321	40,937	62,758,081	5,759,743	226,234,925	120,339,926	352,334,594	6
13,073,824	12,361	17,703,103	3,300,884	131,215,017	40,833,333	175,349,234	7
25,935,326	22,186	33,227,729	3,451,604	172,082,537	77,415,753	252,949,894	8
150,706,043	96,062	178,639,118	15,147,476	303,560,016	337,137,197	655,844,689	9
86,494	67	118,972	18,735	189,718	280,803	489,256	10
1,611,555,776	**1,222,882**	**2,029,621,370**	**225,583,153**	**4,832,333,356**	**4,015,776,010**	**9,073,692,519**	
134,241,177	130,679	183,943,948	21,360,056	763,606,750	485,551,491	1,270,518,297	1
98,196,710	94,195	129,215,389	10,364,680	835,586,247	246,064,720	1,092,015,647	2
151,276,354	153,122	195,805,681	10,596,558	419,988,642	351,186,488	781,771,688	3
213,889,019	189,674	284,436,559	45,242,678	497,656,158	550,826,986	1,093,725,822	4
695,369,371	411,944	818,452,454	46,205,965	1,104,083,922	1,390,703,087	2,540,992,974	5
143,412,955	104,314	182,909,292	43,530,394	549,317,062	399,498,519	992,345,975	6
43,671,467	31,590	56,130,338	29,029,507	234,714,319	152,525,053	416,268,879	7
103,342,890	81,822	137,422,977	17,895,885	360,412,749	355,260,598	733,569,232	8
28,155,833	25,542	41,304,732	1,357,430	66,967,507	84,159,068	152,484,005	9
5,822,235	5,799	8,976,246	764,707	16,667,880	29,761,126	47,193,713	1
11,355,637	14,260	17,325,577	1,103,149	42,475,278	42,433,072	86,011,499	2
28,632,695	27,530	35,164,136	3,961,643	59,824,616	61,474,839	125,261,098	3
9,778,202	7,125	14,188,533	1,351,455	18,021,526	63,118,812	82,491,793	4
3,599,650	3,180	5,377,040	1,392,422	20,533,253	24,793,883	46,719,558	5
7,170,508	7,289	10,511,975	1,892,784	187,116,957	26,780,541	215,790,282	6
1,157,943	926	1,534,522	242,057	6,048,985	5,939,799	12,230,841	7
3,493,226	3,239	5,160,729	571,879	55,812,112	11,113,161	67,497,152	8
4,702,370	6,885	8,893,913	560,962	68,580,203	28,293,696	97,434,861	9
12,979,162	15,368	16,411,988	1,808,432	63,223,982	42,302,840	107,335,254	10
106,274	116	141,891	29,940	274,375	448,765	753,080	11
493,813	494	660,727	90,702	1,418,347	1,095,916	2,604,965	12
696,098	459	945,228	518,058	8,472,119	3,910,271	12,900,448	13
28,185,590	21,421	35,978,717	4,509,841	82,187,888	82,813,307	169,511,036	14
1,192,435	1,009	1,635,751	516,995	8,878,997	2,393,758	11,789,750	15
3,497,231	2,590	4,576,060	1,476,377	48,033,547	14,364,944	63,874,868	16
9,127,644	10,587	13,105,796	274,262	36,864,416	34,303,711	71,442,389	17
955,947	1,193	1,435,061	75,895	23,244,910	4,209,358	27,530,163	18
574,827	462	728,586	134,724	10,641,800	2,411,159	13,187,683	19
649,235	682	1,057,700	78,726	3,074,617	3,200,736	6,354,079	20
70,455	65	133,772	5,046	2,210,942	387,797	2,603,785	21
134,241,177	**130,679**	**183,943,948**	**21,360,056**	**763,606,750**	**485,551,491**	**1,270,518,297**	
156,549	117	216,711	65,632	538,711	410,974	1,015,317	1
246,421	270	428,180	16,944	1,101,605	719,798	1,838,347	2
699,557	786	864,109	113,253	1,399,523	1,475,092	2,987,868	3
17,688,495	18,638	22,636,194	393,133	42,657,644	33,247,109	76,297,886	4
18,807,590	18,622	25,358,470	3,816,374	168,490,247	45,836,735	218,143,356	5
920,541	1,115	1,283,681	72,102	14,833,893	4,764,231	19,670,226	6
1,595,136	1,309	2,008,579	825,502	23,807,162	6,030,508	30,663,172	7
515,514	631	865,275	113,471	2,758,505	2,649,401	5,521,377	8
8,465,860	9,664	10,327,695	909,536	45,906,542	22,066,801	68,882,879	9
1,308,509	1,229	1,681,423	64,983	646,281	2,364,204	3,075,468	10
5,013,495	4,961	7,748,768	114,696	27,430,291	13,364,722	40,909,709	11
2,230,949	2,840	2,779,799	36,967	5,003,352	4,357,839	9,398,158	12
233,751	273	338,661	8,550	613,097	528,054	1,149,701	13
6,022,322	4,472	7,585,416	828,100	28,233,845	15,949,343	45,011,288	14
4,126,341	4,919	5,756,220	106,251	10,361,330	9,422,769	19,890,350	15
461,776	482	638,419	67,836	3,319,837	1,138,772	4,526,445	16
29,703,904	23,867	38,697,789	2,811,350	458,484,382	81,738,368	543,034,100	17
98,196,710	**94,195**	**129,215,389**	**10,364,680**	**835,586,247**	**246,064,720**	**1,092,015,647**	

9.—Statistics of the Establishments, Employees, Salaries and Wages, Power, Fuel,

	Industry and Group	Establishments	Employees on Salary			Employees on	
			Male	Female	Salaries	Male	Female
		No.	No.	No.	$	No.	No.
	3.—Textiles and Textile Products—						
1	Awnings, tents and sails	79	188	77	552,578	570	851
2	Bags, cotton and jute	32	114	60	501,100	316	997
3	Batting and wadding	4	40	9	150,731	177	136
4	Carpets, mats and rugs	16	118	68	466,044	460	412
5	Clothing, men's, factory	418	2,439	1,263	9,610,626	6,508	16,806
6	Clothing, women's, factory	835	2,451	1,524	9,717,205	4,833	17,002
7	Clothing contractors, men's	117	192	33	442,845	930	1,895
8	Clothing contractors, women's	63	87	21	216,960	201	900
9	Cordage, rope and twine	10	88	54	396,301	866	733
10	Corsets	28	173	295	1,027,851	155	1,727
11	Cotton and wool waste	25	64	32	282,052	189	183
12	Cotton textiles, miscellaneous	85	195	97	621,934	307	1,264
13	Cotton thread	7	109	64	401,991	175	557
14	Cotton yarn and cloth	41	687	522	3,096,019	11,203	9,488
15	Dyeing and finishing of textiles	40	189	105	798,409	1,027	346
16	Flax, fibre	42	66	9	123,847	830	23
17	Gloves and mittens, fabric	16	37	23	134,643	84	490
18	Hats and caps	165	591	285	2,142,054	1,616	2,631
19	Hosiery and knitted goods	200	1,152	938	5,044,705	6,199	14,650
20	Miscellaneous textiles	19	264	163	1,303,977	1,275	1,044
21	Narrow fabrics, laces, etc	39	222	194	983,141	722	1,254
22	Oiled and waterproofed clothing	13	59	30	236,748	156	348
23	Silk and artificial silk	32	647	465	2,867,044	5,829	4,374
24	Woollen cloth	75	429	305	2,001,321	4,016	3,611
25	Woollen goods, miscellaneous	36	135	88	747,531	1,349	453
26	Woollen yarn	42	184	125	647,653	1,263	1,819
27	All other industries	2	4	2	14,017	28	69
	Totals, Textiles and Products	**2,481**	**10,921**	**6,851**	**44,529,327**	**51,284**	**84,063**
	4.—Wood and Paper Products—						
1	Beekeepers' and poultrymen's supplies	10	14	11	32,162	44	2
2	Blueprinting	23	31	18	103,131	94	32
3	Boat building	113	144	39	286,292	850	63
4	Boxes and bags, paper	153	814	567	3,320,428	4,018	4,970
5	Boxes, wooden	165	390	147	991,449	4,568	767
6	Carriages, wagons and sleighs	55	72	13	101,916	268	1
7	Coffins and caskets	53	134	42	370,346	788	165
8	Cooperage	66	82	33	188,500	732	32
9	Engraving, stereotyping and electrotyping	105	490	256	1,874,460	1,587	661
10	Excelsior	10	12	9	30,850	95	26
11	Flooring, hardwood	22	85	44	280,540	1,060	65
12	Furniture	472	1,278	519	3,853,790	10,475	1,774
13	Lasts, trees and shoe findings	17	59	42	173,211	387	231
14	Lithographing	43	383	261	1,728,449	1,475	927
15	Miscellaneous paper products	173	823	549	3,364,471	2,698	2,685
16	Miscellaneous wooden products	224	366	171	987,499	2,258	1,003
17	Planing mills, sash and door factories	836	1,462	424	3,218,535	9,012	461
18	Printing and bookbinding	1,322	2,764	1,256	7,879,636	7,168	4,454
19	Printing and publishing	766	5,593	3,313	16,007,556	7,638	1,784
20	Pulp and paper	104	3,948	1,540	15,617,507	31,148	1,260
21	Refrigerators	14	31	14	85,185	232	23
22	Roofing paper, etc	22	236	146	895,149	772	177
23	Sawmills	5,506	6,962	537	7,123,598	35,053	964
24	Trade composition	36	65	36	215,123	266	12
25	Veneer and plywood	31	217	117	815,807	2,748	1,446
26	Woodenware	18	34	15	79,478	548	186
27	Wood turning	64	128	49	297,990	1,044	259
28	All other industries	29	127	71	624,482	1,091	144
	Totals, Wood and Paper Products	**10,452**	**26,744**	**10,239**	**70,547,540**	**128,117**	**24,574**
	5.—Iron and Its Products—						
1	Agricultural implements	39	1,280	726	4,237,401	10,222	1,825
2	Aircraft	45	8,402	5,571	29,957,380	48,391	17,208
3	Automobiles	5	2,112	1,221	8,893,269	18,869	297
4	Automobile supplies	104	1,437	1,013	5,638,778	13,808	4,108
5	Bicycles	8	78	37	237,997	459	101
6	Boilers, tanks and plate work	37	682	291	2,350,802	3,686	148
7	Bridge and structural steel	22	861	354	3,430,862	7,223	346
8	Castings, iron	196	1,015	562	3,722,871	13,317	665
9	Hardware, tools and cutlery	242	1,290	1,066	5,637,301	10,898	3,105
10	Heating and cooking apparatus	71	594	338	1,998,445	5,028	470
11	Iron and steel products, miscellaneous	170	3,247	2,019	12,214,208	22,752	8,945
12	Machinery	258	3,297	2,008	11,894,182	19,084	2,303
13	Machine shops	522	1,132	444	3,378,029	5,840	592
14	Primary iron and steel	64	1,556	1,008	6,408,337	27,055	1,144

Materials, and Values of Products of Canadian Manufacturing Industries, 1944—con.

Wages	Total Employees	Total Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Value of Products		
Wages					Net	Gross	
$	No.	$	$	$	$	$	
1,518,020	1,686	2,070,598	43,357	6,553,083	3,277,509	9,873,949	1
1,261,383	1,487	1,762,483	59,836	22,075,033	4,464,136	26,599,005	2
439,744	362	590,475	46,256	1,829,970	1,052,133	2,928,359	3
1,209,949	1,058	1,675,993	118,271	2,472,925	2,688,746	5,279,942	4
25,756,908	27,016	35,367,534	444,985	78,316,230	59,295,540	138,056,755	5
24,952,153	25,810	34,669,358	311,086	72,815,459	60,839,942	133,966,487	6
2,937,049	3,050	3,379,894	64,153	207,126	3,975,205	4,246,484	7
1,117,275	1,209	1,334,235	15,713	57,088	1,764,762	1,837,563	8
2,240,861	1,741	2,637,162	159,897	8,010,081	5,422,835	13,592,813	9
1,423,365	2,350	2,451,216	29,120	2,965,290	4,962,771	7,957,181	10
446,101	468	728,153	59,718	4,110,519	1,460,794	5,631,031	11
1,383,852	1,863	2,005,786	42,382	5,373,811	3,500,855	8,917,048	12
692,579	905	1,094,570	92,372	3,381,739	2,401,984	5,876,095	13
24,769,524	21,900	27,865,543	3,159,409	66,948,167	46,599,735	116,707,311	14
1,717,603	1,667	2,516,012	547,036	1,266,430	5,137,881	6,951,347	15
822,733	928	946,580	87,709	Nil	2,859,982	2,947,691	16
475,364	634	610,007	11,885	1,067,573	1,021,980	2,101,438	17
4,807,372	5,123	6,949,426	166,971	10,768,833	10,731,478	21,667,282	18
20,490,572	22,939	25,535,277	1,203,000	39,132,779	43,882,156	84,217,935	19
3,329,227	2,746	4,633,204	322,126	13,964,166	13,638,748	27,925,040	20
2,019,854	2,392	3,002,995	107,001	6,129,892	6,529,605	12,766,498	21
591,751	593	828,499	23,483	2,321,635	1,369,413	3,714,531	22
12,096,545	11,315	14,963,589	1,879,722	19,824,898	30,662,737	52,367,357	23
9,062,103	8,361	11,063,424	1,007,676	27,212,376	19,419,427	47,639,479	24
2,380,588	2,025	3,128,119	260,230	10,329,914	6,443,939	17,034,083	25
3,244,484	3,391	3,892,137	327,433	12,436,752	7,553,934	20,318,119	26
89,395	103	103,412	5,731	416,873	228,261	650,865	27
151,276,354	**153,122**	**195,805,681**	**10,596,558**	**419,988,642**	**351,186,488**	**781,771,688**	
41,796	71	73,958	7,225	114,724	299,669	421,618	1
138,503	175	241,634	11,860	189,728	535,693	737,281	2
1,249,762	1,096	1,536,054	44,891	1,703,739	2,248,485	3,997,115	3
9,639,179	10,369	12,959,607	468,991	31,495,057	24,505,466	56,469,514	4
6,217,723	5,872	7,209,172	258,198	13,239,614	12,465,893	25,963,705	5
345,004	354	446,920	29,370	511,469	667,036	1,207,875	6
1,049,217	1,129	1,419,563	65,754	1,723,976	2,421,304	4,211,034	7
1,009,988	879	1,198,488	63,985	2,955,742	2,087,413	5,107,140	8
4,390,130	2,994	6,264,590	135,846	2,124,682	9,305,010	11,565,538	9
123,667	142	154,517	18,671	188,482	256,268	463,421	10
1,385,648	1,254	1,666,188	92,655	4,061,083	2,781,813	6,935,551	11
15,727,038	14,046	19,580,828	764,261	20,871,540	29,660,773	51,296,574	12
626,764	719	799,975	34,444	772,837	1,223,293	2,030,574	13
3,452,431	3,046	5,180,880	109,022	6,467,020	8,977,503	15,553,545	14
6,342,441	6,755	9,706,912	492,980	28,541,602	23,039,717	52,074,299	15
3,794,698	3,798	4,782,197	177,439	5,454,923	7,299,198	12,931,560	16
11,640,083	11,359	14,858,618	717,495	31,777,429	23,088,337	55,583,261	17
14,946,082	15,642	22,825,718	613,986	21,010,700	35,298,119	56,922,805	18
15,614,098	18,328	31,621,654	906,058	17,455,960	63,588,253	81,950,271	19
60,215,901	37,896	75,833,408	37,358,842	157,995,141	174,492,103	369,846,086	20
335,302	300	420,487	15,635	447,177	650,966	1,113,778	21
1,339,567	1,331	2,234,716	324,693	6,942,147	6,536,901	13,803,741	22
44,392,487	43,516	51,516,085	1,860,648	118,167,020	96,528,955	216,556,623	23
485,559	379	700,682	18,976	93,156	1,050,742	1,162,874	24
5,668,343	4,528	6,484,150	311,916	10,407,506	14,027,773	24,747,195	25
706,560	783	786,038	16,970	563,101	892,294	1,472,365	26
1,276,200	1,480	1,574,190	66,358	1,682,653	2,256,697	4,005,708	27
1,734,848	1,433	2,359,330	255,509	10,697,950	4,641,312	15,594,771	28
213,889,019	**189,674**	**284,436,559**	**45,242,678**	**497,656,158**	**550,826,986**	**1,093,725,822**	
21,231,682	14,053	25,469,083	1,086,700	25,165,749	34,846,344	61,098,793	1
131,097,630	79,572	161,055,010	2,593,792	137,734,065	286,653,701	426,981,558	2
44,986,713	22,499	53,879,982	2,327,165	234,578,288	87,185,302	324,090,755	3
33,032,952	20,366	38,671,730	2,171,569	84,155,653	73,868,168	160,195,390	4
992,812	675	1,230,809	78,271	1,137,323	1,748,595	2,964,189	5
7,237,675	4,807	9,588,477	538,193	13,205,452	18,523,527	32,267,172	6
15,979,043	8,784	19,409,905	878,640	23,936,307	33,594,799	58,409,746	7
25,229,250	15,559	28,952,121	2,468,459	27,810,836	43,688,126	73,967,421	8
24,153,375	16,359	29,790,676	1,401,587	20,610,853	56,847,740	78,860,180	9
8,609,633	6,430	10,608,078	533,021	9,371,197	17,249,861	27,154,079	10
62,862,667	36,963	75,076,875	3,015,914	126,539,119	126,852,257	256,407,290	11
38,558,387	26,692	50,452,569	1,723,381	50,665,344	95,131,051	147,519,776	12
11,139,054	8,008	14,517,083	429,140	6,339,479	23,153,381	29,922,000	13
54,428,694	30,763	60,837,031	17,276,424	92,214,866	103,018,391	212,509,681	14

9.—Statistics of the Establishments, Employees, Salaries and Wages, Power, Fuel,

	Industry and Group	Establishments	Employees on Salary			Employees on	
			Male	Female	Salaries	Male	Female
	5.—Iron and Its Products—concluded	No.	No.	No.	$	No.	No.
15	Railway rolling-stock	37	1,786	373	5,583,224	27,293	459
16	Sheet metal products	194	1,321	832	4,790,036	10,533	4,166
17	Shipbuilding and repairs	94	3,167	1,452	10,626,142	59,960	2,497
18	Wire and wire goods	84	488	342	2,083,819	4,329	1,416
	Totals, Iron and Its Products	**2,192**	**33,745**	**19,657**	**123,083,083**	**308,747**	**49,795**
	6.—Non-ferrous Metal Products—						
1	Aluminum products	21	462	273	1,819,397	3,656	1,170
2	Brass and copper products	162	1,295	822	5,235,981	12,169	3,347
3	Electrical apparatus and supplies	234	5,691	3,828	21,442,886	21,903	17,412
4	Jewellery, silverware, etc	139	420	350	1,809,154	2,172	1,644
5	Miscellaneous non-ferrous metal products	22	90	91	413,894	430	251
6	Non-ferrous metal smelting and refining	16	2,445	926	7,816,181	19,550	1,006
7	White metal alloys	41	240	179	958,844	1,420	1,072
	Totals, Non-ferrous Metal Products	**635**	**10,643**	**6,469**	**39,496,337**	**61,300**	**25,902**
	7.—Non-metallic Mineral Products—						
1	Abrasive products	15	233	185	1,131,044	2,135	220
2	Asbestos products	13	102	41	311,077	636	147
3	Cement	8	76	16	229,490	1,066	49
4	Cement products	149	211	55	492,041	913	16
5	Clay products from domestic clay	110	195	58	594,282	1,786	208
6	Clay products from imported clay	24	111	64	405,183	782	284
7	Coke and gas products	34	820	382	2,392,267	3,472	73
8	Glass products	90	353	212	1,295,192	3,246	1,713
9	Gypsum products	9	50	18	134,424	462	39
10	Lime	42	80	22	178,802	713	Nil
11	Miscellaneous non-metallic mineral products	52	200	92	642,254	1,456	179
12	Petroleum products	48	1,122	317	3,830,988	5,177	193
13	Salt	9	87	59	397,113	504	60
14	Sand-lime brick	3	9	1	26,324	35	1
15	Stone, monumental and ornamental	142	191	38	398,390	581	44
	Totals, Non-metallic Mineral Products	**748**	**3,840**	**1,560**	**12,458,871**	**22,964**	**3,226**
	8.—Chemicals and Allied Products—						
1	Acids, alkalies and salts	37	1,031	415	3,604,323	6,026	492
2	Adhesives	24	115	57	409,140	401	58
3	Coal tar distillation	10	68	18	230,366	273	19
4	Fertilizers	26	282	147	1,103,414	1,666	131
5	Gases, compressed	40	196	215	760,286	598	16
6	Inks, printing and writing	31	162	80	738,354	293	81
7	Medicinal and pharmaceutical preparations	201	1,433	1,215	6,204,314	1,940	3,012
8	Miscellaneous chemical products	228	3,153	2,298	12,017,726	25,134	19,852
9	Paints, pigments and varnishes	97	1,129	687	4,351,329	2,446	559
10	Polishes and dressings	51	148	100	498,549	231	265
11	Soaps, washing compounds, etc	138	677	371	2,475,961	1,405	543
12	Toilet preparations	93	338	363	1,656,224	359	1,036
13	Wood distillation	5	10	5	30,101	273	Nil
	Totals, Chemicals and Allied Products	**981**	**8,742**	**5,971**	**34,080,087**	**41,045**	**26,064**
	9.—Miscellaneous Industries—						
1	Artificial flowers and feathers	28	57	37	173,984	68	502
2	Automobile accessories, fabric	9	76	33	304,442	162	276
3	Brooms, brushes and mops	86	292	152	940,824	1,011	709
4	Buttons	20	101	38	375,487	401	356
5	Candles	12	43	26	142,898	93	71
6	Fountain pens and pencils	11	117	104	528,396	264	454
7	Ice, artificial	53	91	45	234,334	641	14
8	Jewellery cases and silverware cabinets	4	16	18	71,154	71	122
9	Lamps, electric, and lamp shades	24	49	25	167,113	168	261
10	Mattresses and springs	76	293	149	1,180,805	1,821	648
11	Miscellaneous, including carpet sweepers	5	5	3	14,732	30	28
12	Motion pictures	5	328	268	1,223,815	64	38
13	Musical instruments	23	97	40	250,889	583	45
14	Pipes, tobacco	5	7	Nil	10,347	30	6
15	Regalia and society emblems	12	17	9	37,605	19	33
16	Scientific and professional equipment	48	1,546	971	5,648,077	4,497	2,830
17	Signs, electric, neon and other	30	92	50	300,655	290	19
18	Sporting goods	35	118	65	359,933	466	283
19	Stamps and stencils, rubber and metal	43	90	51	268,134	174	32
20	Statuary, art goods and novelties	63	99	41	277,779	205	377
21	Store display accessories	8	15	6	39,019	40	20
22	Toys	51	94	49	275,275	343	744
23	Typewriter supplies	8	57	33	254,710	136	73
24	Umbrellas	6	20	13	68,492	16	62
	Totals, Miscellaneous Industries	**665**	**3,720**	**2,226**	**13,148,899**	**11,593**	**8,003**
	Grand Totals, All Industries	**28,483**	**126,858**	**65,700**	**418,065,594**	**744,635**	**285,689**

Materials, and Values of Products of Canadian Manufacturing Industries, 1944—con.

Wages	Total Employees	Total Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Value of Products		
Wages					Net	Gross	
$	No.	$	$	$	$	$	
55,771,990	29,911	61,355,214	3,861,080	78,432,377	85,513,150	167,806,607	15
22,350,937	16,852	27,140,973	1,277,564	57,624,118	51,027,176	109,928,858	16
128,341,104	67,076	138,967,246	3,610,913	101,056,440	224,632,290	329,299,643	17
9,365,773	6,575	11,449,592	934,152	13,506,456	27,169,228	41,609,836	18
695,369,371	**411,944**	**818,452,454**	**46,205,965**	**1,104,083,922**	**1,390,703,087**	**2,540,992,974**	
8,099,449	5,561	9,918,846	864,883	14,096,430	16,724,821	31,686,134	1
28,254,373	17,633	33,490,354	2,734,387	72,460,196	74,656,771	149,851,354	2
60,861,574	48,834	82,304,460	2,488,432	120,413,034	160,169,974	283,071,440	3
5,215,492	4,586	7,024,646	173,081	13,650,416	12,840,590	26,664,087	4
909,753	862	1,323,647	45,058	1,770,096	3,747,287	5,562,441	5
36,720,810	23,927	44,536,991	36,907,623	313,996,140	123,303,038	474,206,801	6
3,351,504	2,911	4,310,348	316,930	12,930,750	8,056,038	21,303,718	7
143,412,955	**104,314**	**182,909,292**	**43,530,394**	**549,317,062**	**399,498,519**	**992,345,975**	
4,379,986	2,773	5,511,030	2,580,192	9,926,243	17,558,678	30,065,113	1
1,094,157	926	1,405,234	198,385	2,281,287	2,280,913	4,760,585	2
2,025,285	1,207	2,254,775	3,197,955	2,566,432	6,882,354	12,646,741	3
1,254,283	1,195	1,746,324	273,456	3,029,635	3,255,372	6,558,463	4
2,582,522	2,247	3,176,804	1,357,313	161,189	5,478,923	6,997,425	5
1,414,124	1,241	1,819,307	310,155	979,998	3,134,412	4,424,565	6
6,548,346	4,747	8,940,613	6,478,811	37,809,253	25,287,651	69,575,715	7
7,138,193	5,524	8,433,385	1,807,152	9,931,251	15,687,258	27,425,661	8
721,837	569	856,261	297,606	2,659,683	2,120,188	5,077,477	9
1,235,624	815	1,414,426	1,752,723	293,827	5,005,235	7,051,785	10
2,799,451	1,927	3,441,705	939,612	8,940,232	11,889,972	21,769,816	11
10,486,951	6,809	14,317,939	9,002,567	153,558,664	47,986,185	210,547,416	12
905,030	710	1,302,143	652,126	846,298	3,287,660	4,786,084	13
57,806	46	84,130	20,729	59,609	131,265	211,603	14
1,027,872	854	1,426,262	160,725	1,670,718	2,538,987	4,370,430	15
43,671,467	**31,590**	**56,130,338**	**29,029,507**	**234,714,319**	**152,525,053**	**416,268,879**	
12,148,459	7,964	15,752,782	8,980,955	29,540,390	42,801,806	81,323,151	1
713,989	631	1,123,129	232,435	3,139,664	2,254,793	5,626,892	2
502,162	378	732,528	336,971	3,324,047	2,036,126	5,697,144	3
3,507,006	2,226	4,610,420	1,162,992	17,690,683	12,335,270	31,188,945	4
1,094,225	1,025	1,854,511	350,668	1,193,038	7,389,501	8,933,207	5
564,766	616	1,303,120	46,471	2,019,380	2,674,210	4,740,061	6
5,563,698	7,600	11,768,012	369,542	22,535,718	32,734,321	55,639,581	7
69,991,103	50,437	82,008,829	4,942,592	227,608,024	198,943,420	431,494,036	8
4,311,028	4,821	8,662,357	521,600	24,789,289	23,796,543	49,107,432	9
537,455	744	1,036,004	32,259	4,033,211	3,293,049	7,358,519	10
2,878,181	2,996	5,354,142	604,910	17,497,145	15,018,466	33,120,521	11
1,142,186	2,096	2,798,410	69,300	6,126,860	11,615,561	17,811,721	12
388,632	288	418,733	245,190	915,300	367,532	1,528,022	13
103,342,890	**81,822**	**137,422,977**	**17,895,885**	**360,412,749**	**355,260,598**	**733,569,232**	
478,241	664	652,225	7,502	628,856	1,147,599	1,783,957	1
627,536	547	931,978	26,164	4,828,825	1,556,768	6,411,757	2
1,881,801	2,164	2,822,625	83,136	3,973,756	4,940,514	8,997,406	3
883,959	896	1,259,446	60,398	1,280,740	2,096,745	3,437,883	4
149,822	233	292,720	19,289	560,633	729,568	1,309,490	5
720,746	939	1,249,142	31,994	2,068,838	2,738,259	4,839,091	6
948,756	791	1,183,090	292,602	145,542	3,001,230	3,439,374	7
208,477	227	279,631	7,396	234,558	442,122	684,076	8
382,879	503	549,992	15,419	712,114	1,011,584	1,739,117	9
3,256,921	2,911	4,437,726	186,230	9,924,830	7,836,756	17,947,816	10
45,561	66	60,293	2,833	82,276	86,817	171,926	11
181,724	698	1,405,539	10,845	1,014,529	2,136,616	3,161,990	12
772,419	765	1,023,308	68,741	765,218	1,402,358	2,236,317	13
32,867	43	43,214	1,819	20,095	58,707	80,621	14
44,345	78	81,950	1,231	109,075	156,566	266,872	15
14,086,226	9,844	19,734,303	363,257	34,592,256	43,578,970	78,534,483	16
511,957	451	812,612	63,802	278,708	1,718,323	2,060,833	17
865,112	932	1,225,045	44,618	1,711,292	3,657,123	5,413,033	18
277,286	347	545,420	12,668	207,284	880,264	1,100,216	19
498,126	722	775,905	13,430	788,560	1,159,063	1,961,053	20
58,379	81	97,398	3,327	83,647	160,958	247,932	21
877,769	1,230	1,153,044	24,168	1,643,253	2,288,377	3,955,798	22
291,485	299	546,195	15,196	1,083,254	1,064,961	2,163,411	23
73,439	111	141,931	1,365	229,368	308,820	539,553	24
28,155,833	**25,542**	**41,304,732**	**1,357,430**	**66,967,507**	**84,159,068**	**152,484,005**	
1,611,555,776	**1,222,882**	**2,029,621,370**	**225,583,153**	**4,832,333,356**	**4,015,776,010**	**9,073,692,519**	

Subsection 2.—Manufactures Classified by the Purpose of the Products

Significant changes have occurred since 1922 in the importance of the various groups shown in the purpose classification. On the basis of percentage to gross value of production, the most striking change is in the food group which showed a substantial decline from 28·2 p.c. of the total in 1922 to 22·6 p.c. in 1939 and 18·8 p.c. in 1944. The producers materials group, which took the lead from the food group in 1923, showed a steady increase up to 1939, since when it has remained at about 30 p.c. of the total. Due to the production of war equipment, vehicles and vessels increased from 7·7 p.c. in 1939 to 15·7 p.c. in 1944 and industrial equipment from 15·2 p.c. to 16·7 p.c. The other groups, with the exception of "miscellaneous", showed slight declines during the war years.

10.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Product, by Main Groups, Significant Years 1922-44 and in Detail for 1944.

Year and Purpose Heading	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	$	No.	$	$	$
1922						
Food	8,256	343,867,673	66,815	67,738,707	490,731,438	673,794,031
Drink and tobacco	496	104,047,461	13,402	13,777,986	33,027,203	99,529,819
Clothing	659	166,336,319	63,441	59,056,687	117,015,780	221,903,467
Personal utilities	936	56,060,262	16,904	17,080,049	21,879,031	57,258,476
House furnishings	600	75,168,053	18,032	19,861,883	24,956,960	62,961,050
Books and stationery	1,557	82,240,691	28,103	36,920,804	27,190,071	99,118,969
Vehicles and vessels	1,154	191,257,804	30,067	37,237,412	87,840,814	160,624,079
Producers materials	5,588	1,086,692,015	143,354	147,581,011	316,400,400	666,241,271
Industrial equipment	1,740	556,862,578	75,269	89,081,303	160,035,399	338,882,958
Miscellaneous	30	4,960,434	869	1,061,388	2,964,354	4,916,418
Totals, 1922	**21,016**	**2,667,493,290**	**456,256**	**489,397,230**	**1,282,041,450**[1]	**2,385,230,538**[1]
1929						
Food	8,351	463,984,558	94,707	87,960,036	597,396,238	837,986,384
Drink and tobacco	599	201,365,785	18,976	21,670,376	65,440,053	208,968,998
Clothing	1,680	223,376,104	93,935	88,914,849	172,726,557	336,452,685
Personal utilities	380	56,155,234	11,148	13,595,331	29,389,246	61,191,750
House furnishings	600	76,185,921	20,857	23,248,775	34,293,465	77,811,331
Books and stationery	1,917	144,222,275	38,141	56,003,183	45,384,362	155,947,960
Vehicles and vessels	781	310,942,038	61,835	91,239,185	243,258,350	407,947,648
Producers materials	6,227	1,776,758,115	223,071	258,255,079	524,193,104	1,154,908,260
Industrial equipment	1,576	719,112,914	99,922	131,820,142	304,581,449	614,827,756
Miscellaneous	105	32,789,065	3,939	4,584,261	13,007,989	27,403,344
Totals, 1929	**22,216**	**4,004,892,009**	**666,531**	**777,291,217**	**2,029,670,813**	**3,883,446,116**
1933						
Food	8,759	408,995,499	75,434	68,652,798	313,760,942	492,729,174
Drink and tobacco	670	185,612,678	18,289	17,626,141	40,454,300	98,409,638
Clothing	1,922	143,382,002	75,363	56,001,234	103,209,050	194,627,734
Personal utilities	601	39,681,900	8,938	8,616,372	15,323,848	35,589,961
House furnishings	654	66,047,002	15,587	12,887,200	16,022,584	38,684,649
Books and stationery	2,170	132,507,101	34,300	42,830,661	28,818,380	103,477,707
Vehicles and vessels	479	232,153,543	37,618	35,725,625	56,917,292	120,992,781
Producers materials	6,564	1,459,569,284	139,734	126,208,238	252,383,314	573,991,467
Industrial equipment	1,819	588,147,285	60,061	64,155,426	133,382,392	277,075,032
Miscellaneous	142	23,163,454	3,334	3,544,129	7,516,826	18,497,642
Totals, 1933	**23,780**	**3,279,259,838**	**468,658**	**436,247,824**	**967,788,928**	**1,954,075,785**

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[1] For the year 1922 the figures for "Cost of Materials" and "Gross Value of Products" include the value placed on intermediate products used in further processes in the chemical group of industries. For this reason these figures differ slightly from those contained in the other tables of this Chapter.

10.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Product, by Main Groups, Significant Years 1922-44 and in Detail for 1944—continued.

Year and Purpose Heading	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	$	No.	$	$	$
1937						
Food	8,696	441,611,585	96,740	94,656,930	558,118,480	792,271,852
Drink and tobacco	668	187,487,631	21,646	24,398,981	68,935,399	152,152,105
Clothing	2,158	173,474,299	95,274	79,547,935	148,901,374	271,690,917
Personal utilities	634	43,476,516	12,420	12,729,626	28,185,411	55,289,473
House furnishings	800	89,293,123	27,446	27,169,931	41,836,387	90,102,397
Books and stationery	2,349	137,392,420	40,348	53,453,842	44,257,314	138,673,644
Vehicles and vessels	376	248,949,257	55,141	71,890,706	186,070,917	319,280,534
Producers materials	6,892	1,482,194,043	208,930	232,733,013	634,232,482	1,221,670,588
Industrial equipment	2,086	629,908,231	97,250	119,070,287	280,546,886	551,891,976
Miscellaneous	175	31,440,726	5,256	6,075,786	15,842,137	32,436,014
Totals, 1937	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**3,625,459,509**
1939						
Food	8,529	451,298,489	99,983	101,904,518	526,619,353	784,072,722
Drink and tobacco	657	190,313,279	23,489	27,051,038	74,295,571	164,812,439
Clothing	2,178	187,495,826	97,220	83,762,588	146,201,614	275,567,762
Personal utilities	623	46,866,657	12,623	13,771,704	26,408,179	57,043,684
House furnishings	767	93,773,837	27,647	28,417,336	40,528,394	88,800,804
Books and stationery	2,452	143,293,147	41,804	56,466,921	47,916,777	144,288,052
Vehicles and vessels	364	269,734,181	54,673	72,238,590	141,704,269	266,089,493
Producers materials	7,095	1,580,602,852	201,849	229,381,185	559,816,486	1,130,510,177
Industrial equipment	1,957	650,305,878	93,235	117,754,260	257,416,596	528,678,421
Miscellaneous	183	33,340,303	5,591	7,063,013	15,252,136	34,919,974
Totals, 1939	**24,805**	**3,647,024,449**	**658,114**	**737,811,153**	**1,836,159,375**	**3,474,783,528**
1943						
Food	8,421	592,585,732	123,531	159,966,391	1,094,856,728	1,464,737,993
Drink and tobacco	647	242,927,173	28,044	40,435,534	99,602,633	238,506,471
Clothing	2,592	244,217,485	119,715	141,914,240	292,357,250	523,922,505
Personal utilities	730	68,356,782	18,059	24,516,425	50,345,687	104,512,562
House furnishings	881	121,791,799	38,472	54,067,442	80,661,310	178,461,622
Books and stationery	2,476	159,733,494	45,647	71,581,405	72,022,230	204,779,758
Vehicles and vessels	385	816,203,889	217,970	425,756,663	587,491,411	1,272,121,963
Producers materials	8,554	2,503,815,480	361,570	582,769,064	1,449,892,836	2,748,227,057
Industrial equipment	2,724	1,051,234,389	223,783	387,609,582	707,744,312	1,492,541,620
Miscellaneous	242	516,300,504	64,277	98,675,638	255,518,686	505,049,448
Totals, 1943	**27,652**	**6,317,166,727**	**1,241,068**	**1,987,292,384**	**4,690,493,083**	**8,732,860,999**
1944						
Food	8,435	[1]	136,747	183,795,031	1,271,356,037	1,702,330,839
Drink and tobacco	635	[1]	28,566	44,140,376	118,406,602	281,731,695
Clothing	2,713	[1]	117,056	146,623,855	284,018,437	529,230,834
Personal utilities	758	[1]	18,922	26,130,683	54,417,448	115,502,040
House furnishings	908	[1]	38,940	58,426,100	83,231,172	187,175,054
Books and stationery	2,468	[1]	47,319	76,542,070	75,882,848	219,966,613
Vehicles and vessels	413	[1]	222,604	454,449,952	637,341,589	1,425,858,778
Producers materials	8,990	[1]	343,035	567,699,762	1,369,160,212	2,646,303,770
Industrial equipment	2,889	[1]	216,279	385,434,071	697,897,961	1,512,623,216
Miscellaneous	274	[1]	53,414	86,379,470	240,621,050	452,969,680
Totals, 1944	**28,483**	–	**1,222,882**	**2,029,621,370**	**4,832,333,356**	**9,073,692,519**

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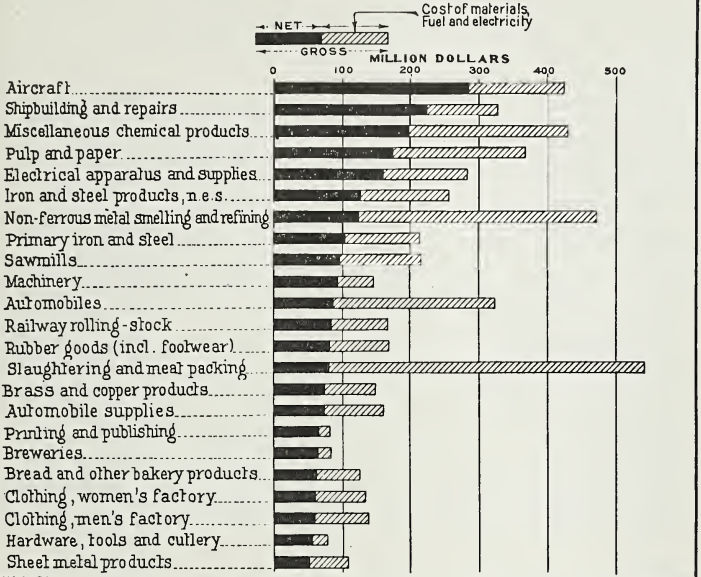
[1] Not collected.

10.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Purpose of the Principal Product, by Main Groups, Significant Years 1922-44 and in Detail for 1944—concluded.

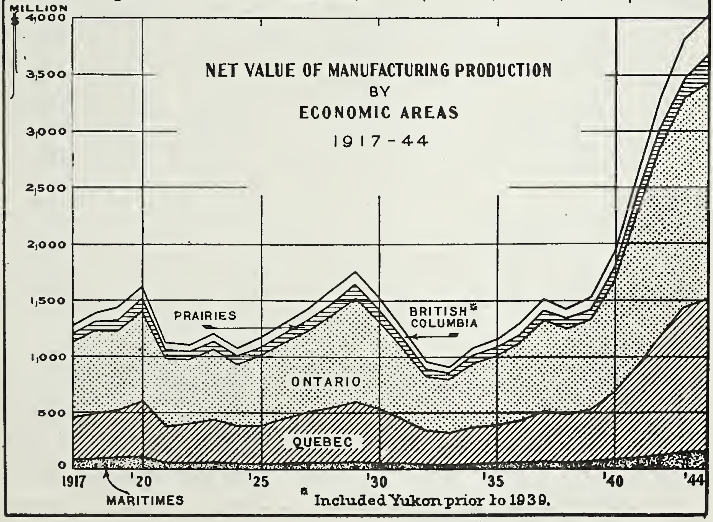
Year and Purpose Heading	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	$	$	$	$
1944—DETAIL						
Food	**8,435**	**136,747**	**183,795,031**	**1,271,356,037**	**408,862,849**	**1,702,330,839**
Breadstuffs	4,287	51,139	66,417,828	307,841,619	142,471,000	458,155,998
Fish	535	9,664	10,327,695	45,906,542	22,066,801	68,882,879
Fruit and vegetable preparations	458	15,368	16,411,988	63,223,982	42,302,840	107,335,254
Meats	226	24,349	39,336,208	461,804,219	82,877,140	547,560,545
Milk products	2,418	21,677	29,516,005	209,889,807	59,280,875	273,998,131
Oils and fats	8	117	216,711	538,711	410,974	1,015,317
Sugar	11	2,590	4,576,060	48,033,547	14,364,944	63,874,868
Miscellaneous	492	11,843	16,992,536	134,117,610	45,088,275	181,507,847
Drink and Tobacco	**635**	**28,566**	**44,140,376**	**118,406,602**	**159,387,626**	**281,731,695**
Beverages, alcoholic	78	10,305	19,565,573	38,554,779	87,912,695	129,211,351
Beverages, non-alcoholic	475	6,481	10,033,946	19,742,497	32,961,862	53,547,792
Tobacco	82	11,780	14,540,857	60,109,326	38,513,069	98,972,552
Clothing	**2,713**	**117,056**	**146,623,855**	**284,018,437**	**242,324,720**	**529,230,834**
Boots and shoes, leather	228	18,638	22,636,194	42,657,644	33,247,109	76,297,886
Fur goods	535	6,190	9,430,191	28,076,572	15,728,926	43,985,177
Garments and personal furnishings	1,461	59,435	77,202,237	154,361,193	130,838,220	286,064,470
Gloves and mittens	83	3,474	3,389,806	6,070,925	5,379,819	11,499,596
Hats and caps	193	5,787	7,601,651	11,397,689	11,879,077	23,451,239
Knitted goods	200	22,939	25,535,277	39,132,779	43,882,156	84,217,935
Waterproofs	13	593	828,499	2,321,635	1,369,413	3,714,531
Personal Utilities	**758**	**18,922**	**26,130,683**	**54,417,448**	**59,949,718**	**115,502,040**
Jewellery and time-pieces	143	4,813	7,304,277	13,884,974	13,282,712	27,348,163
Recreational supplies	109	2,927	3,401,397	4,119,763	7,347,858	11,605,148
Personal utilities	506	11,182	15,425,009	36,412,711	39,319,148	76,548,729
House Furnishings	**908**	**38,940**	**58,426,100**	**83,231,172**	**100,932,323**	**187,175,054**
Books and Stationery	**2,468**	**47,319**	**76,542,070**	**75,882,848**	**141,795,037**	**219,966,613**
Vehicles and Vessels	**413**	**222,604**	**454,449,952**	**637,341 589**	**771,461,866**	**1,425,858,778**
Producers Materials	**8,990**	**343,035**	**567,699,762**	**1,369,160,212**	**1,142,646,292**	**2,646,303,770**
Farm material	26	2,226	4,610,420	17,690,683	12,335,270	31,188,945
Manufacturers materials	1,244	202,766	355,265,433	925,635,866	743,755,333	1,785,424,710
Building materials	7,204	113,770	176,106,257	345,948,484	327,089,255	687,661,669
General materials	516	24,273	31,717,652	79,885,179	59,466,434	142,028,446
Industrial Equipment	**2,889**	**216,279**	**385,434,071**	**697,897,961**	**781,329,304**	**1,512,623,216**
Farming equipment	49	14,124	25,543,041	25,280,473	35,146,013	61,520,411
Manufacturing equipment	275	27,411	51,252,544	51,438,181	96,354,344	149,550,350
Trading equipment	142	1,969	3,184,715	1,798,435	6,825,736	9,011,766
Service equipment	370	19,993	35,103,322	60,655,039	82,030,274	143,508,141
Light, heat and power equipment	376	65,530	115,632,169	326,180,193	252,771,276	597,478,469
General equipment	1,677	87,252	154,718,280	232,545,640	308,201,661	551,554,079
Miscellaneous	**274**	**53,414**	**86,379,470**	**240,621,050**	**207,086,275**	**452,969,680**

Table **11** has been included in order to give the amount and value of each of the principal commodities produced by the manufacturing industries of Canada. The list is not intended to be complete since a large number of commodities are produced in such small quantities that to include them would extend the table considerably without adding proportionately to its value. The commodities listed, however, cover approximately 75 p.c. of total production.

GROSS AND NET VALUES OF PRODUCTION
IN INDUSTRIES WITH OVER $50,000,000 NET
1944
(CLASSIFIED BY NET VALUE)



NET VALUE OF MANUFACTURING PRODUCTION
BY
ECONOMIC AREAS
1917-44



* Included Yukon prior to 1939.

11.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries of Canada, Grouped by Purpose, 1944

Group and Commodity	Unit of Measure	Quantity	Value
			$
Food—			
Biscuits, all kinds	ton	75,146	25,154,523
Bread, pies, cakes, etc.	—	–	114,739,532
Butter, factory made	lb.	301,433,189	102,384,153
Cheese, factory made	"	222,542,929	48,561,153
Confectionery, all kinds	—	–	43,379,685
Cream, sold in dairy factories	lb.	20,496,922	14,832,551
Feed, chopped grain	ton	1,410,444	51,218,321
Fish, canned and otherwise prepared	—	–	43,703,973
Flour, wheat	bbl.	24,474,278	132,627,350
Feeds, stock, poultry, etc.	ton	1,223,890	60,593,594
Fruits and vegetables, canned	lb.	466,180,326	33,938,349
Ice cream, factory made	gal.	15,396,107	18,686,399
Jams, jellies and marmalades	lb.	106,885,898	13,228,524
Lard	"	116,870,812	15,044,446
Meats, cured	"	885,659,250	203,601,543
Meats, sold fresh	"	1,332,085,292	207,414,293
Milk, sold in factories	gal.	116,498,904	47,413,469
Milk, evaporated and condensed	lb.	212,609,952	17,859,834
Pickles, sauces and catsup	—	–	8,756,382
Powders, edible	lb.	103,172,876	42,934,545
Sausage, fresh and cured	"	124,009,622	23,411,460
Shortening	"	105,121,206	15,432,589
Soup, canned	"	124,899,365	14,758,148
Sugar, granulated (cane and beet)	"	876,072,730	53,636,229
Tea and coffee, prepared	"	84,987,320	41,273,842
Drink and Tobacco—[1]			
Aerated waters	gal.	64,238,831	40,746,221
Beer, ale, stout and porter	"	113,396,351	136,673,351
Cigarettes	M	15,484,605	171,001,575
Cigars	"	198,512	10,470,972
Spirits, potable, sold	Pf. gal.	6,347,403	31,615,382
Tobacco, chewing, smoking and snuff	lb.	28,029,549	41,665,477
Tobacco, raw leaf, processed	"	71,363,712	27,413,084
Wine, sold	gal.	3,735,095	6,138,229
Clothing—			
Coats and overcoats, men's, boys' and women's	No.	2,553,836	71,522,237
Dresses, women's and misses'	"	12,042,997	43,375,162
Footwear, leather	pr.	30,309,695	71,881,119
Footwear, rubber	"	14,060,897	17,762,701
Hats and caps, men's and boys'	doz.	206,352	5,182,655
Hats, women's	"	463,164	8,778,944
Hosiery, all kinds	"	8,446,205	35,054,174
Shirts, fine and work	"	1,461,328	17,849,536
Suits, men's and boys'	No.	1,652,697	28,486,643
Suits, women's and misses'	"	572,133	7,686,072
Underwear	doz.	3,534,720	21,388,210
Uniforms, woollen	No.	1,914,306	16,152,617
Personal Utilities—			
Bags, leather	—	–	6,940,570
Jewellery	—	–	8,728,689
Pianos, organs and parts	—	–	1,035,993
Plated ware, all kinds	—	–	4,091,043
Radio sets and accessories[2]	—	–	16,172,887
Soap	—	–	26,956,467
Sporting goods	—	–	3,189,314
Toilet preparations and perfumes	—	–	14,001,061
Toys and games	—	–	6,729,485
House Furnishings—			
Blankets, all kinds	lb.	10,324,436	8,189,993
Brooms and brushes	—	–	8,685,790
Carpets, mats and rugs	carpet yd.	1,262,857	3,912,986
Furniture, household, incl. beds and couches	—	–	36,189,459
Heating and ventilating equipment and furnaces	—	–	12,269,789
Kitchenware	—	–	2,284,849
Mattresses	No.	992,179	8,181,814
Mops	—	–	852,473
Springs, bed and other furniture	—	–	3,615,438
Stoves, coal, wood, electric and gas	No.	331,582	9,460,410

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[1] Includes excise taxes on tobacco products and prime cost of spirits. [2] See also radio-communication equipment under "Miscellaneous".

11.—Quantities and Values of the Principal Commodities Produced by the Manufacturing Industries of Canada, Grouped by Purpose, 1944—concluded

Group and Commodity	Unit of Measure	Quantity	Value
			$
Books and Stationery—			
Advertising matter, printed	—	-	12,220,415
Books and catalogues, printed	—	-	8,979,569
Circular letters, bank notes, etc., printed	—	-	8,720,378
Periodicals, printed for publishers	—	-	8,134,547
Periodicals, printed by publishers—			
Subscriptions and sales	—	-	27,142,098
Gross revenue from advertising	—	-	43,378,887
Sheet forms, commercial, printed	—	-	14,368,643
Vehicles and Vessels—			
Aircraft, including parts and repairs	—	-	486,291,003
Automobiles, commercial	—	-	215,643,631
Automobile parts and accessories	—	-	280,862,471
Cars, steam and electric, and parts	—	-	61,623,238
Ships and ship repairs	—	-	416,645,096
Miscellaneous—			
Abrasives, artificial	—	-	23,268,112
Bags, cotton and jute	doz.	11,763,546	24,937,112
Bags, paper	—	-	11,250,917
Bars, iron and steel, hot rolled	net ton	400,111	28,486,322
Batteries, electric, and parts	—	-	16,749,924
Blooms, billets and slabs	—	-	17,041,753
Boilers, heating and power, and parts	—	-	16,396,182
Boxes, paper and wood	—	-	68,715,355
Calcium and sodium compounds	—	-	26,479,017
Cans, tin	—	-	33,078,466
Castings, iron	ton	256,034	30,250,243
Coke	"	4,104,294	38,406,640
Cotton fabrics	yd.	377,442,444	64,121,939
Enamels, lacquers and varnishes	—	-	26,297,000
Explosives	—	-	36,403,093
Farm implements and parts	—	-	25,342,538
Ferro-alloys	—	-	22,741,684
Forgings, steel and other	—	-	30,432,311
Gas, sold	M cu. ft.	21,101,351	19,392,362
Gases, compressed and liquefied	—	-	13,731,700
Gasoline	imp. gal.	970,941,172	122,792,541
Glass, pressed and blown	—	-	17,988,095
Hardware, builders' and other	—	-	8,321,939
Leather, shoe	—	-	31,857,423
Lumber, sawn	—	-	137,412,659
Machinery, all kinds and parts	—	-	164,001,109
Medicines and pharmaceuticals	—	-	43,359,452
Munitions and other war supplies	—	-	728,575,905
Oil, fuel and gas	imp. gal.	872,707,076	43,508,537
Paints, mixed, ready for use	"	9,456,321	22,071,110
Paper, newsprint, wrapping and book	—	-	191,681,772
Paper boards	—	-	44,653,328
Pipes and fittings, iron and steel	—	-	21,774,238
Plates, sheets, etc., iron and steel	—	-	43,476,950
Pulp, wood, made for sale	short ton	5,271,137	211,041,412
Radio-communication equipment	—	-	93,833,634
Refrigerators, electric	No.	3,442	815,309
Rods and bars, brass, bronze, etc	lb.	61,042,738	9,045,046
Rods, wire, copper, steel, etc	"	291,934,832	15,012,788
Rolled iron and steel forms, semi-finished	—	-	17,041,753
Sash, doors and other millwork	—	-	21,064,413
Scientific instruments	—	-	69,668,089
Silk, artificial and mixtures, continuous filament	yd.	58,436,183	27,946,213
Smelter and refinery products	—	-	474,206,801
Spun rayon and mixtures	yd.	21,664,470	8,493,951
Steel ingots and castings (sold)	net ton	171,072	34,848,363
Steel shapes erected, bridge, etc	—	-	10,959,711
Steel shapes, structural, made	—	-	19,723,211
Tire fabrics	lb.	30,990,100	11,480,320
Tools, all kinds	—	-	22,733,593
Twine and rope	—	-	16,357,120
Wires and cables, electrical	—	-	32,149,766
Wire, wire rope and cable, steel	—	-	18,139,062
Woollen cloth, woven and other	yd.	25,890,132	42,736,881
Yarn, cotton, artificial silk, wool, etc	lb.	89,733,041	53,044,698

Subsection 3.—Manufactures Classified by Origin of the Materials

The distinction made between farm materials of Canadian and foreign origin is based on whether the materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber, cotton, etc. Industries included in the Canadian origin classes may, however, be using large quantities of imported materials.

The mineral origin group includes, in addition to the non-ferrous metals so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances, the raw materials for which are very largely imported. A high standard of living and advanced industrial organization is usually indicated by a relatively large production and consumption of mineral products. During periods of depression when the production of capital goods is curtailed, employment in the industries of the farm group, which produce mainly consumer goods, exceeds that of the mineral group. Average salaries and wages in 1944 totalled $1,905 for the mineral origin group and $1,372 for the farm origin group.

12.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, by Main Groups, Significant Years, 1929-44.

NOTE.—Figures for 1924, the first year for which this classification is available, are given at p. 411 of the 1946 Year Book.

Year and Origin	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	$	No.	$	$	$
1929						
Farm origin	9,041	969,384,866	181,682	188,306,755	852,606,083	1,396,769,569
Mineral origin	3,219	1,550,662,908	218,879	304,027,803	678,683,203	1,392,499,868
Forest origin	7,353	1,148,558,242	163,863	191,044,307	313,088,964	722,269,066
Marine origin	730	28,644,442	16,367	5,411,855	21,496,859	34,966,260
Wild life origin	234	14,338,686	3,767	4,783,323	12,847,817	20,861,039
Mixed origin	1,639	293,302,865	81,973	83,717,174	150,947,887	316,080,314
Grand Totals, 1929	**22,216**	**4,004,892,009**	**666,531**	**777,291,217**	**2,029,670,813**	**3,883,446,116**
Farm Origin Group—						
From field crops	5,191	697,206,163	114,236	115,201,292	496,842,580	889,075,246
From animal husbandry	3,850	272,178,703	67,446	73,105,463	355,763,503	507,694,323
Totals, Farm Origin	**9,041**	**969,384,866**	**181,682**	**188,306,755**	**852,606,083**	**1,396,769,569**
Canadian origin	8,743	708,461,549	134,680	140,340,993	682,056,026	1,106,006,184
Foreign origin	298	260,923,317	47,002	47,965,762	170,550,057	290,763,385
1933						
Farm origin	9,695	844,582,058	158,602	137,711,749	454,882,704	791,956,470
Mineral origin	3,539	1,306,641,651	130,565	138,101,092	271,434,337	601,428,003
Forest origin	7,796	882,445,602	102,807	99,046,012	133,550,374	335,886,257
Marine origin	620	15,532,775	4,064	2,287,385	10,960,289	17,380,323
Wild life origin	335	10,507,157	3,498	3,481,885	7,159,079	13,000,927
Mixed origin	1,795	219,550,595	69,122	55,619,701	89,802,145	194,423,805
Grand Totals, 1933	**23,780**	**3,279,259,838**	**468,658**	**436,247,824**	**967,788,928**	**1,954,075,785**
Farm Origin Group—						
From field crops	5,746	609,044,529	93,433	81,655,182	263,007,043	494,048,930
From animal husbandry	3,949	235,537,529	65,169	56,056,567	191,875,661	297,907,540
Totals, Farm Origin	**9,695**	**844,582,058**	**158,602**	**137,711,749**	**454,882,704**	**791,956,470**
Canadian origin	9,373	629,450,643	124,547	107,807,386	365,559,776	620,197,449
Foreign origin	322	215,131,415	34,055	29,904,363	89,322,928	171,759,021

12.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, by Main Groups, Significant Years, 1929-44—continued.

Year and Origin	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	$	No.	$	$	$
1937						
Farm origin	10,139	901,539,200	203,908	197,861,819	809,964,706	1,276,249,283
Mineral origin	3,384	1,401,562,788	216,959	280,323,383	784,742,328	1,451,202,762
Forest origin	8,392	916,530,488	144,597	161,030,221	254,863,829	589,517,795
Marine origin	597	18,130,385	5,427	3,354,771	16,318,781	26,088,625
Wild life origin	365	13,328,164	4,264	4,452,918	10,761,233	17,658,867
Mixed origin	1,957	214,136,806	85,296	74,703,925	130,275,910	264,742,168
Grand Totals, 1937	**24,834**	**3,465,227,831**	**660,451**	**721,727,037**	**2,006,926,787**	**3,625,459,500**
Farm Origin Group—						
From field crops	6,197	635,995,955	118,765	115,999,546	456,791,911	774,683,154
From animal husbandry	3,942	265,543,245	85,143	81,862,273	353,172,795	501,566,129
Totals, Farm Origin	**10,139**	**901,539,200**	**203,908**	**197,861,819**	**809,964,706**	**1,276,249,283**
Canadian origin	9,326	673,003,567	158,075	152,070,575	659,488,389	1,008,885,353
Foreign origin	813	228,535,633	45,833	45,791,244	150,476,317	267,363,930
1939						
Farm origin	10,203	952,929,892	220,210	217,724,965	778,250,125	1,289,993,021
Mineral origin	3,474	1,498,265,618	210,752	280,054,303	669,728,573	1,321,444,094
Forest origin	8,430	951,016,933	142,091	160,798,500	244,944,997	572,335,960
Marine origin	523	21,479,200	5,369	3,638,794	18,114,698	28,816,536
Wild life origin	384	14,723,743	4,604	5,396,623	11,592,066	19,961,526
Mixed origin	1,791	208,609,063	75,088	70,197,968	113,528,916	242,232,391
Grand Totals, 1939	**24,805**	**3,647,024,449**	**658,114**	**737,811,153**	**1,836,159,375**	**3,474,783,528**
Farm Origin Group—						
From field crops	6,096	649,746,486	124,708	126,311,033	410,994,461	759,964,866
From animal husbandry	4,107	303,183,406	95,502	91,413,932	367,255,664	530,028,155
Totals, Farm Origin	**10,203**	**952,929,892**	**220,210**	**217,724,965**	**778,250,125**	**1,289,993,021**
Canadian origin	9,382	699,345,423	171,460	168,260,771	630,779,223	1,011,294,132
Foreign origin	821	253,584,469	48,750	49,464,194	147,470,902	278,698,889
1943						
Farm origin	10,299	1,216,233,910	275,337	357.141,351	1,602,302,829	2,394,035,243
Mineral origin	4,256	3,667,230,050	673,988	1,234,374,825	2,358,826,073	4,788,289,815
Forest origin	9,870	1,094,903,638	181,019	259,111,310	445,445,053	991,157,515
Marine origin	523	30,741,194	8,621	9,137,089	43,366,785	64,804,969
Wild life origin	511	23,768,316	6,000	8,744,483	27,073,763	42,081,385
Mixed origin	2,193	284,289,619	96,103	118,783,326	213,478,580	452,492,072
Grand Totals, 1943	**27,652**	**6,317,166,727**	**1,241,068**	**1,987,292,384**	**4,690,493,083**	**8,732,860,999**
Farm Origin Group—						
From field crops	6,269	819,635,374	153,149	200,773,531	772,653,116	1,279,733,823
From animal husbandry	4,030	396,598,536	122,188	156,367,820	829,649,713	1,114,301,420
Totals, Farm Origin	**10,299**	**1,216,233,910**	**275,337**	**357,141,351**	**1,602,302,829**	**2,394,035,243**
Canadian origin	9,468	940,503,127	216,663	277,316,138	1,341,198,884	1,954,615,390
Foreign origin	831	275,730,783	58,674	79,825,213	261,103,945	439,419,853
1944						
Farm origin	10,329	[1]	287,756	394,716,309	1,781,014,374	2,688,731,415
Mineral origin	4,479	[1]	634,542	1,208,779,764	2,258,796,792	4,708,104,244
Forest origin	10,347	[1]	186,680	278,171,969	495,531,476	1,082,160,284
Marine origin	535	[1]	9,664	10,327,695	45,906,542	68,882,879

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[1] Not collected.

12.—Principal Statistics of the Manufacturing Industries of Canada, Classified According to the Origin of the Material Used, by Main Groups, Significant Years, 1929-44—concluded.

Year and Origin	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products
	No.	$	No.	$	$	$
1944—concluded						
Wild life origin	535	[1]	6,190	9,430,191	28,076,572	43,985,177
Mixed origin	2,258	[1]	98,050	128,195,442	223,007,600	481,828,520
Grand Totals, 1944	**28,483**	-	**1,222,882**	**2,029,621,370**	**4,832,333,356**	**9,073,692,519**
Farm Origin Group—						
From field crops	6,307	[1]	164,514	226,751,705	888,435,918	1,477,008,962
From animal husbandry	4,022	[1]	123,242	167,964,604	892,578,456	1,211,722,453
Totals, Farm Origin	**10,329**	-	**287,756**	**394,716,309**	**1,781,014,374**	**2,688,731,415**
Canadian origin	9,493	[1]	225,077	303,293,749	1,507,501,822	2,202,655,904
Foreign origin	836	[1]	62,679	91,422,560	273,512,552	486,075,511

[1] Not collected.

Subsection 4.—Leading Manufacturing Industries

In the following statement, the rank of the ten leading industries in 1944, from the standpoint of gross value of production, is compared with their respective ranks in significant years since 1922.

THE TEN LEADING INDUSTRIES, 1944, COMPARED AS TO RANK, SIGNIFICANT YEARS, 1922-44

NOTE.—A dash indicates that the industry did not rank among the forty leading industries.

Industry	Rank in—							
	1944	1943	1942	1939	1937	1933	1929	1922
Slaughtering and meat packing	1	3	2	3	3	3	2	3
Non-ferrous metal smelting and refining	2	1	1	1	1	2	9	-
Miscellaneous chemical products	3	2	5	38	-	-	-	-
Aircraft	4	8	18	-	-	-	-	-
Pulp and paper	5	7	3	2	2	1	1	2
Shipbuilding and repairs	6	4	6	-	-	-	-	-
Automobiles	7	6	4	5	4	11	4	6
Electrical apparatus and supplies	8	9	9	9	8	16	8	17
Miscellaneous iron and steel products	9	5	12	-	-	-	-	-
Butter and cheese	10	11	8	4	6	5	6	5

A prominent feature of Canadian manufacturing development in recent years has been the rapid growth of non-ferrous metal smelting. This industry, based upon the rich base-metal resources of the country, has now taken its place among the leading manufactures along with the industries based upon forest, agricultural and live-stock resources. The incidence of the depression resulted in a rearrangement in the ranking of many industries; in some cases this has proved to be temporary. Under the impetus of war production, the industries engaged in producing the equipment needed by the Armed Forces, such as shipbuilding, aircraft, automobiles, miscellaneous chemical products, and primary iron and steel, advanced to higher positions. With a minor decline in the production of war equipment during 1944, the food industries, by reason of the continuing demand for their products, bettered their position; slaughtering and meat packing advanced from third to first place and butter and cheese from eleventh to tenth place.

13.—Principal Statistics of the Forty Leading Industries of Canada, Ranked According to Gross Value of Products, 1944

NOTE.—Statistics of "Capital invested" were discontinued in 1944.

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Value of Products	
						Net	Gross
		No.	No.	$	$	$	$
1	Slaughtering and meat packing	153	23,867	38,697,789	458,484,382	81,738,368	543,034,100
2	Non-ferrous metal smelting and refining	16	23,927	44,536,991	313,996,140	123,303,038	474,206,801
3	Miscellaneous chemical products	228	50,437	82,008,829	227,608,024	198,943,420	431,494,036
4	Aircraft	45	79,572	161,055,010	137,734,065	286,653,701	426,981,558
5	Pulp and paper	104	37,896	75,833,408	157,995,141	174,492,103	369,846,086
6	Shipbuilding and repairs	94	67,076	138,967,246	101,056,440	224,632,290	329,299,643
7	Automobiles	5	22,499	53,879,982	234,578,288	87,185,302	324,090,755
8	Electrical apparatus and supplies	234	48,834	82,304,460	120,413,034	160,169,974	283,071,440
9	Iron and steel products, *n.e.s.*	170	36,963	75,076,875	126,539,119	126,852,257	256,407,290
10	Butter and cheese	2,282	18,622	25,358,470	168,490,247	45,836,735	218,143,356
11	Sawmills	5,506	43,516	51,516,085	118,167,020	96,528,955	216,556,623
12	Flour and feed mills	1,087	7,289	10,511,975	187,116,957	26,780,541	215,790,282
13	Primary iron and steel	64	30,763	60,837,031	92,214,866	103,018,391	212,509,681
14	Petroleum products	48	6,809	14,317,939	153,558,664	47,986,185	210,547,416
15	Rubber goods	56	21,421	35,978,717	82,187,888	82,813,307	169,511,036
16	Railway rolling-stock	37	29,911	61,355,214	78,432,377	85,513,150	167,806,607
17	Automobile supplies	104	20,366	38,671,730	84,155,653	73,868,168	160,195,390
18	Brass and copper products	162	17,633	33,490,354	72,460,196	74,656,771	149,851,354
19	Machinery	258	26,692	50,452,569	50,665,344	95,131,051	147,519,776
20	Clothing, men's, factory	418	27,016	35,367,534	78,316,230	59,295,540	138,056,755
21	Clothing, women's, factory	835	25,810	34,669,358	72,815,459	60,839,942	133,966,487
22	Bread and other bakery products	2,917	27,530	35,164,136	59,824,616	61,474,839	125,261,098
23	Cotton yarn and cloth	41	21,900	27,865,543	66,948,167	46,599,735	116,707,311
24	Sheet metal products	194	16,852	27,140,973	57,624,118	51,027,176	109,928,858
25	Fruit and vegetable preparations	458	15,368	16,411,988	63,223,982	42,302,840	107,335,254
26	Miscellaneous food industries	269	6,885	8,893,913	68,580,203	28,293,696	97,434,861
27	Biscuits, confectionery, cocoa, etc.	219	14,260	17,325,577	42,475,278	42,433,072	86,011,499
28	Hosiery and knitted goods	200	22,939	25,535,277	39,132,779	43,882,156	84,217,935
29	Breweries	61	7,125	14,188,533	18,021,526	63,118,812	82,491,793
30	Printing and publishing	766	18,328	31,621,654	17,455,960	63,588,253	81,950,271
31	Acids, alkalies and salts	37	7,964	15,752,782	29,540,390	42,801,806	81,323,151
32	Hardware, tools and cutlery	242	16,359	29,790,676	20,610,853	56,847,740	78,860,180
33	Scientific and professional equipment	48	9,844	19,734,303	34,592,256	43,578,970	78,534,483
34	Boots and shoes, leather	228	18,638	22,636,194	42,657,644	33,247,109	76,297,886
35	Castings, iron	196	15,559	28,952,121	27,810,836	43,688,126	73,967,421
36	Tobacco, cigars and cigarettes	69	10,587	13,105,796	36,864,416	34,303,711	71,442,389
37	Coke and gas products	34	4,747	8,940,613	37,809,253	25,287,651	69,575,715
38	Fish curing and packing	535	9,664	10,327,695	45,906,542	22,066,801	68,882,879
39	Feeds, stock and poultry	206	3,239	5,160,729	55,812,112	11,113,161	67,497,152
40	Sugar refineries	11	2,590	4,576,060	48,033,547	14,364,944	63,874,868
	Totals, Forty Leading Industries	**18,637**	**917,297**	**1,568,012,129**	**3,929,910,012**	**3,086,259,787**	**7,200,481,476**
	Totals, All Industries	**28,483**	**1,222,882**	**2,029,621,370**	**4,832,333,356**	**4,015,776,010**	**9,073,692,519**
	Percentage to all industries	65·4	75·0	77·2	81·3	76·8	79·3
	Primary textiles[1]	613	77,816	96,743,445	194,509,683	174,820,999	378,075,214

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[1] On a broader classification basis, the primary textile industry, which includes the production of cottons, woollens, silk, hosiery and knitted goods, and the dyeing and finishing of textiles, ranks second in number of employees, third in salaries and wages paid and fifth in gross value of production.

14.—Principal Statistics of the Forty Leading Industries of Canada, Ranked According to Gross Value of Products, 1945

NOTE.—Statistics of "Capital invested" were discontinued in 1944.

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Value of Products	
						Net	Gross
		No.	No.	$	$	$	$
1	Slaughtering and meat packing	152	23,215	40,009,888	427,168,114	74,765,206	504,849,523
2	Pulp and paper	109	39,996	80,462,644	179,369,499	180,401,885	398,804,515
3	Non-ferrous metal smelting and refining	17	16,771	33,853,120	238,940,486	89,898,878	355,676,526
4	Aircraft	38	37,812	84,230,503	115,093,267	161,746,606	278,652,880
5	Sawmills	5,295	44,040	54,017,500	126,006,754	103,153,766	231,108,030
6	Electrical apparatus and supplies	247	44,129	76,468,795	92,041,030	135,919,899	230,531,874
7	Automobiles	6	17,915	43,623,220	164,963,785	61,987,025	228,695,109
8	Flour and feed mills	1,023	7,511	11,322,915	192,270,945	30,014,438	224,269,380
9	Butter and cheese	2,241	19,435	26,864,454	171,011,216	49,110,376	224,174,572
10	Shipbuilding	89	48,118	99,470,593	60,294,253	141,646,420	204,594,323
11	Petroleum	46	6,775	13,891,310	151,153,429	41,423,861	201,683,679
12	Primary iron and steel	63	29,378	57,862,489	86,417,375	89,859,343	192,279,159
13	Rubber goods	55	23,490	39,111,477	78,500,892	98,836,225	181,413,226
14	Railway rolling-stock	37	30,515	61,793,939	84,264,315	92,804,283	181,249,842
15	Miscellaneous chemical products	232	29,214	50,197,271	83,754,688	89,660,775	177,661,547
16	Clothing, women's, factory	989	27,975	39,485,827	78,385,452	70,099,770	148,827,882
17	Iron and steel products, *n.e.s.*	186	20,663	41,768,204	71,221,217	72,293,317	145,722,443
18	Clothing, men's, factory	453	27,423	36,933,900	78,554,206	60,928,679	139,920,218
19	Machinery	267	26,285	46,982,376	44,817,319	91,624,455	138,192,090
20	Bread and other bakery products	2,860	29,045	38,328,474	62,829,434	65,580,825	132,518,212
21	Automobile supplies	108	17,390	33,115,867	65,897,750	58,727,677	126,562,829
22	Cotton yarn and cloth	41	21,646	28,020,333	66,528,980	45,126,175	114,682,802
23	Miscellaneous foods (coffee, tea, etc.)	267	7,106	9,652,137	79,653,383	29,682,189	109,931,480
24	Sheet metal products	196	17,121	27,736,555	58,242,909	46,632,971	106,257,719
25	Brass and copper products	161	13,267	25,680,949	53,655,695	49,403,675	105,150,750
26	Fruit and vegetable preparations	470	14,440	16,117,172	59,712,161	37,958,248	99,371,391
27	Breweries	60	7,593	15,323,200	20,493,465	71,952,408	93,872,904
28	Fish curing and packing	540	10,219	11,268,019	62,064,331	30,529,102	93,567,274
29	Printing and publishing	769	19,498	35,027,002	19,151,982	69,949,912	90,054,024
30	Hosiery and knitted goods	216	23,654	26,640,343	40,423,407	46,368,918	88,035,002
31	Biscuits, confectionery, cocoa, etc	231	13,952	17,428,577	41,715,991	41,773,487	84,627,083
32	Boots and shoes, leather	263	20,096	24,668,874	45,685,629	38,419,106	84,523,621
33	Tobacco, cigars and cigarettes	72	10,619	13,844,074	43,839,561	37,981,339	82,111,234
34	Castings, iron	205	15,726	29,316,949	29,478,446	44,687,679	76,581,974
35	Scientific and professional equipment	49	7,226	13,964,073	52,605,810	17,404,946	70,323,034
36	Feeds, stock and poultry	222	3,486	5,563,756	57,914,289	11,703,901	70,250,739
37	Hardware and tools	244	14,901	26,025,726	20,238,543	47,410,504	68,945,881
38	Coke and gas products	34	4,757	9,013,108	37,746,482	24,213,270	68,483,305
39	Acids, alkalies and salts	35	7,022	14,527,508	22,351,361	36,517,138	67,467,062
40	Printing and bookbinding	1,331	16,847	25,279,944	23,702,464	39,520,894	63,881,768
	Totals, Forty Leading Industries	**19,919**	**816,271**	**1,384,893,065**	**3,488,160,315**	**2,627,719,571**	**6,285,506,906**
	Totals, All Industries	**29,050**	**1,119,372**	**1,845,773,449**	**4,473,668,847**	**3,564,315,899**	**8,250,368,866**
	Percentage to all industries	68·6	72·8	75·0	78·0	73·4	76·2
	Primary textiles[1]	645	78,644	99,410,231	198,795,381	179,061,740	386,476,232

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[1] On a broader classification basis, the primary textile industry, which includes the production of cottons, woollens, silk, hosiery and knitted goods, and the dyeing and finishing of textiles, ranks first in number of employees, second in salaries and wages paid and third in gross value of production.

Section 4.—Principal Factors in Manufacturing Production

The subjects treated under this Section include capital, employment, salaries and wages and size of establishments.

Subsection 1.—Capital Employed

The collection of statistics on capital invested in manufacturing industries was discontinued in 1944. However, figures for each year from 1917 to 1943 are given in Table **1** of this Chapter, and by provinces for significant years of the same period in Table **2**. A table showing the forms of capital employed for certain years from 1924 to 1943 is given at p. 417 of the 1946 Year Book.

Subsection 2.—Employment in Manufactures

Using a base and taking the percentages of the wage-earners and the total employees in each year, and dividing those percentages into the corresponding volumes of manufacturing production, tentative conclusions are arrived at regarding the efficiency of production per wage-earner and per employee. These indexes are, of course, affected by the changes in the method of computing the number of wage-earners adopted in 1925, and then again in 1931. Inasmuch as the change increased the apparent number of employees between 1925 and 1930, it proportionately decreased the index of the efficiency of production per employee. Comparability exists, however, between the figures prior to 1926 and subsequent to 1930. Up to 1939, there was a general gain in volume of production per person employed. At the outbreak of war unemployed skilled workers were first absorbed into industry, with the result that the efficiency of production was slightly improved. As the War progressed, however, manufacturers were forced more and more to employ unskilled workers. The decline in the efficiency of production in 1942, 1943 and 1944 may, therefore, be attributed to this cause as well as to absenteeism for various causes.

15.—Employees in Manufacturing Industries, with Volume of Manufacturing Production and Comparative Efficiency of Production, 1931-44

NOTE.—Figures, with qualifications as to comparability, for 1917 to 1930 are published at p. 421 of the 1939 Year Book.

Year	Salaried Employees	Wage-Earners	Total Employees	Percentages Relative to 1935-39		Index Number of Volume of Mf'd. Products	Indexes of Efficiency of Production	
				Of Wage-Earners	Of Total Employees		Per Wage-Earner	Per Employee
	No.	No.	No.	p.c.	p.c.	(1935-39=100)		
1931	91,491	437,149	528,640	85·8	84·9	79·9	93·1	94·1
1932	87,050	381,783	468,833	74·9	75·3	67·6	90·3	89·8
1933	86,636	382,022	468,658	75·0	75·3	67·7	90·3	89·9
1934	92,095	427,717	519,812	83·9	83·5	79·6	94·9	95·3
1935	97,930	458,734	556,664	90·0	89·5	87·9	97·7	98·2
1936	104,417	489,942	594,359	96·1	95·5	96·2	100·1	100·7
1937	115,827	544,624	660,451	106·9	106·1	108·9	101·9	102·6
1938	120,589	521,427	642,016	102·3	103·2	100·8	98·5	97·7
1939	124,772	533,342	658,114	104·7	105·8	106·3	101·5	100·5
1940	135,760	626,484	762,244	122·9	122·5	125·2	101·9	102·2
1941	158,944	802,234	961,178	157·4	154·5	155·9	99·0	100·9
1942	177,187	974,904	1,152,091	191·3	185·1	179·9	94·0	97·2
1943	193,195	1,047,873	1,241,068	205·6	199·4	187·7	91·3	94·1
1944	192,558	1,030,324	1,222,882	202·2	196·5	180·8	89·4	92·0

Monthly Record of Employment in Manufactures.—Ordinarily, manufacturing employment in Canada reaches its highest point during the summer months. Some of the seasonal industries, such as canning, are most active then, textile industries are preparing winter goods, and industry generally feels the active demand of the agricultural purchasing power resulting from the prospect of the season's harvest. After the setback of 1929, employment declined steadily until the middle of 1933. The peak of employment in June, 1929, when 575,693 wage-earners were on the payrolls, was surpassed in September, 1937, with 582,305 wage-earners. With the outbreak of war the improvement in employment became increasingly rapid and a new high record was attained in August, 1943, when 1,067,890 wage-earners were employed. The highest employment during 1944 was attained in June when 1,049,557 wage-earners were recorded.

16.—Wage-Earners Employed in the Manufacturing Industries of Canada, by Months and Sex, Significant Years, 1922-44

Month	1922	1929	1933	1939	1941	1942	1943	1944
	Total Wage-Earners							
January	324,257	502,644	340,027	490,337	700,133	892,366	1,023,261	1,026,066
February	336,729	519,423	347,777	496,160	719,822	914,395	1,030,878	1,024,951
March	349,110	536,866	355,888	503,475	739,680	930,043	1,036,648	1,024,820
April	360,248	555,711	358,759	509,739	757,658	946,291	1,033,748	1,022,100
May	382,504	574,905	377,659	530,864	787,137	967,551	983,058	1,032,946
June	393,935	575,693	392,196	531,245	806,635	985,796	1,058,645	1,049,557
July	391,186	573,554	393,464	529,575	819,732	997,670	1,056,975	1,047,811
August	389,511	567,022	402,249	543,605	843,252	1,011,341	1,067,890	1,048,686
September	392,423	564,796	410,954	562,355	861,774	1,014,030	1,066,595	1,029,965
October	385,262	553,338	405,757	568,564	859,591	1,005,830	1,053,486	1,011,340
November	378,992	527,213	396,384	563,117	858,832	1,009,262	1,049,738	998,940
December	367,724	499,893	380,612	544,817	842,848	992,880	1,021,630	961,820
	Male							
January	243,682	397,459	257,445	381,997	549,976	683,455	751,269	738,764
February	253,178	410,865	260,728	385,955	564,176	698,435	755,181	737,647
March	263,849	426,713	267,259	391,623	579,757	708,845	757,702	737,761
April	274,821	443,560	271,348	398,982	597,256	720,285	755,888	737,913
May	294,095	459,783	285,705	416,963	621,396	736,499	764,158	747,746
June	304,395	460,294	296,937	417,975	636,633	750,012	776,003	762,126
July	304,020	459,051	300,329	417,987	646,237	756,047	779,687	762,939
August	301,234	449,721	302,969	421,895	654,782	753,663	777,733	757,135
September	298,918	441,510	304,908	431,509	662,465	748,193	767,043	737,347
October	291,973	432,576	301,315	437,220	661,454	739,884	754,484	724,084
November	286,511	412,114	294,945	432,920	659,011	739,471	753,211	717,179
December	277,854	391,903	285,690	422,538	649,766	731,647	738,073	698,990
	Female							
January	80,575	105,185	82,582	108,340	150,157	208,911	271,992	287,302
February	83,551	108,558	87,049	110,205	155,646	215,960	275,697	287,304
March	85,261	110,153	88,629	111,852	159,923	221,198	278,946	287,059
April	85,427	112,142	87,411	110,757	160,402	226,006	277,860	284,187
May	88,409	115,122	91,954	113,901	165,741	231,052	218,900	285,200
June	89,540	115,399	95,259	113,270	170,002	235,784	282,642	287,431
July	87,166	114,503	93,135	111,588	173,495	241,623	277,288	284,872
August	88,277	117,301	99,280	121,710	188,470	257,678	290,157	291,551
September	93,505	123,286	106,046	130,846	199,309	265,837	299,552	292,618
October	93,289	120,762	104,442	131,344	198,137	265,946	299,002	287,256
November	92,481	115,099	101,439	130,197	199,821	269,791	296,527	281,761
December	89,870	107,990	94,922	122,279	193,082	261,233	283,557	262,830

Hours Worked by Wage-Earners.—Since 1932, each firm has been required to report the number of hours worked by all its wage-earners during the month of highest employment, except for the years 1938 and 1939 when one week in a month of normal employment was reported. In 1938, the number of hours worked per week were compiled by sex, and a change was also made in the analysis of the weekly hours worked. Since 1940, the hours worked per week include overtime. These changes make it impossible to measure accurately the changes in the number of hours worked per week. The figures in Tables **17** to **20** represent the summation of the different months of highest employment as reported by all firms.

For all wage-earners, the hours worked per week declined from 48·9 in 1932 to 47·2 in 1939, and reached 50·6 in 1941, some of this increase no doubt being due to the inclusion of overtime. For 1942, 1943 and 1944 there was a counter movement in the hours worked, especially among females, due to the employment of many workers on a part-time basis. Whereas in 1939 there were only 2·8 p.c. of the male and 5·3 p.c. of the female wage-earners working under 30 hours per week, in 1944 these percentages rose to 5·3 p.c. and 12·5 p.c., respectively. Also, the number of hours worked by females averaged 5·5 less than the number of hours worked by their male co-workers.

17.—Wage-Earners in Manufacturing, Working Specified Numbers of Hours[1] per Week in the Month of Highest Employment, 1938-44

NOTE.—Hours worked per week in 1932–37 are given at p. 386 of the 1942 edition of the Year Book; in 1940 at p. 392 of the 1943–44 edition.

Hours Worked per Week	1938	1939	1941	1942	1943	1944
	TOTAL WAGE-EARNERS					
	No.	No.	No.	No.	No.	No.
30 or less	24,073	19,849	36,064	48,714	74,406	87,817
31–43	99,125	85,597	77,461	98,200	128,755	151,280
44	83,763	81,128	85,040	88,049	88,964	112,840
45–47	66,268	64,031	69,844	80,613	100,861	108,585
48	121,625	130,506	190,437	244,899	248,083	245,024
49–50	62,294	65,822	92,931	105,434	115,606	116,473
51–54	39,596	46,165	120,645	147,229	151,231	128,580
55	20,575	24,316	55,701	63,702	62,701	51,965
56–64	60,755	61,067	187,184	193,297	176,730	140,295
65 or over	8,755	8,478	63,913	73,590	60,665	46,046
Totals, Wage-Earners	**586,829**	**586,959**	**979,220**	**1,143,727**	**1,208,002**	**1,188,905**
Average Hours per Week	**46·7**	**47·2**	**50·6**	**50·2**	**48·8**	**47·5**
	MALE					
	No.	No.	No.	No.	No.	No.
30 or less	15,439	12,868	23,635	30,166	39,985	45,414
31–43	75,842	64,780	50,969	59,146	68,530	83,293
44	59,983	57,667	60,062	58,342	53,563	76,141
45–47	47,877	45,703	43,554	47,403	62,701	67,306
48	97,287	103,636	149,612	182,783	185,913	182,798
49–50	45,981	48,378	63,541	70,870	75,975	80,878
51–54	33,744	37,439	90,044	106,657	114,739	100,621
55	16,493	19,766	43,431	48,996	49,194	42,214
56–64	56,171	56,837	165,242	171,775	158,657	128,751
65 or over	8,224	8,036	59,250	67,776	56,837	42,618
Totals, Male Wage-Earners	**457,041**	**455,110**	**749,340**	**843,914**	**866,094**	**850,034**
Average Hours per Week	**47·3**	**48·1**	**51·5**	**51·3**	**50·4**	**49·1**
	FEMALE					
	No.	No.	No.	No.	No.	No.
30 or less	8,634	6,981	12,429	18,548	34,421	42,403
31–43	23,283	20,817	26,492	39,054	60,225	67,987
44	23,780	23,461	24,978	29,707	35,401	36,699
45–47	18,391	18,328	26,290	33,210	38,160	41,279
48	24,338	26,870	40,825	62,116	62,170	62,226
49–50	16,313	17,444	29,390	34,564	39,631	35,595
51–54	5,852	8,726	30,601	40,572	36,492	27,959
55	4,082	4,550	12,270	14,706	13,507	9,751
56–64	4,584	4,230	21,942	21,522	18,073	11,544
65 or over	531	442	4,663	5,814	3,828	3,428
Totals, Female Wage-Earners	**129,788**	**131,849**	**229,880**	**299,813**	**341,908**	**338,871**
Average Hours per Week	**44·6**	**45·2**	**47·6**	**46·9**	**44·8**	**43·6**

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[1] For 1938 and 1939, the hours worked do not include overtime, while for 1941 to 1944 overtime is included.

18.—Wage-Earners Working Specified Weekly Hours[1] in Month of Highest Employment, by Sex, Province and Industrial Group, 1944

Province or Industrial Group	Hours Worked per Week										Total Wage-Earners	Average Hours Worked per Week
	30 or Less	31-43	44	45-47	48	49-50	51-54	55	56-64	65 or Over		
	MALE											
Province	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	6	26	39	14	128	44	218	39	117	227	858	56·3
Nova Scotia	1,507	2,481	3,549	1,302	8,174	1,341	3,441	905	6,363	1,848	30,911	50·0
New Brunswick	894	1,178	1,913	738	2,755	2,126	3,616	510	4,971	959	19,660	51·1
Quebec	11,603	25,833	14,465	18,568	57,775	26,314	37,517	20,198	61,236	21,359	294,868	51·1
Ontario	24,599	39,871	23,140	36,684	78,774	43,492	45,906	18,755	44,438	15,781	371,440	48·1
Manitoba	1,620	2,791	5,299	2,006	6,795	3,078	2,537	459	2,909	716	28,210	47·2
Saskatchewan	514	715	508	508	1,637	1,030	1,289	351	2,788	328	9,668	50·9
Alberta	824	1,582	1,916	991	3,235	1,567	2,849	441	2,855	373	16,633	48·9
British Columbia	3,844	8,815	25,312	6,495	23,468	1,886	3,248	556	3,059	1,023	77,706	45·2
Yukon and Northwest Territories	3	1	–	–	57	–	–	–	15	4	80	50·3
Canada [2]	**45,414**	**83,293**	**76,141**	**67,306**	**182,798**	**80,878**	**100,621**	**42,214**	**128,751**	**42,618**	**850,034**	**49·1**
Industrial Group												
Vegetable products	9,547	7,436	3,702	5,328	13,409	6,867	11,774	4,243	14,795	8,176	85,277	49·4
Animal products [2]	2,608	4,636	2,457	4,073	5,719	6,414	5,348	2,437	3,481	896	38,069	47·6
Textiles and textile products	2,353	6,955	5,868	3,758	8,634	12,974	4,269	4,133	4,789	1,632	55,365	48·0
Wood and paper products	8,416	12,538	12,155	11,152	31,884	11,667	18,765	9,641	44,111	7,202	167,531	50·7
Iron and its products	15,040	36,421	40,727	30,380	72,720	28,652	39,539	17,716	47,401	20,237	348,833	49·1
Non-ferrous metal products	2,855	6,200	3,239	5,653	23,854	9,635	7,760	2,286	6,078	1,524	69,084	48·2
Non-metallic mineral products	1,231	2,536	3,397	1,183	8,061	1.361	2,763	684	3,339	1,215	25,770	48·5
Chemicals and allied products	2,426	5,159	2,721	3,004	16,856	2,144	9,113	605	4,071	1,429	47,528	48·0
Miscellaneous industries	938	1,412	1,875	2,775	1,661	1,164	1,290	469	686	307	12,577	46·1

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[1] Including overtime.

[2] Exclusive of "dairy factories" and "fish-curing and -packing" plants.

18.—Wage-Earners Working Specified Weekly Hours[1] in Month of Highest Employment, by Sex, Province and Industrial Group, 1944—con.

Province or Industrial Group	Hours Worked per Week										Total Wage-Earners	Average Hours Worked per Week
	30 or Less	31-43	44	45-47	48	49-50	51-54	55	56-64	65 or Over		
	FEMALE											
Province	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	51	90	20	3	73	9	14	1	51	18	330	44·5
Nova Scotia	384	531	776	543	1,384	750	286	127	649	64	5,494	46·8
New Brunswick	399	645	298	441	1,165	623	205	76	203	24	4,079	44·8
Quebec	9,105	23,671	11,444	14,434	27,367	13,995	12,128	5,065	4,019	911	122,139	45·0
Ontario	29,096	36,205	15,665	20,777	23,653	18,750	13,877	4,023	5,439	2,128	169,613	42·5
Manitoba	996	2,521	2,982	1,247	2,457	679	498	54	130	15	11,579	42·9
Saskatchewan	222	301	204	243	655	68	67	16	43	9	1,828	43·4
Alberta	304	830	1,093	614	1,059	293	173	15	303	52	4,736	44·7
British Columbia	1,846	3,193	4,217	2,977	4,413	428	711	374	705	207	19,071	43·8
Yukon and Northwest Territories	–	–	–	–	–	–	–	–	2	–	2	60·0
Canada[2]	**42,403**	**67,987**	**36,699**	**41,279**	**62,226**	**35,595**	**27,959**	**9,751**	**11,544**	**3,428**	**338,871**	**43·6**
Industrial Group												
Vegetable products	13,330	11,484	3,781	6,263	8,270	4,067	4,129	1,797	4,217	1,729	59,067	42·3
Animal products[2]	2,746	4,846	2,279	3,461	3,165	2,824	1,597	377	418	82	21,795	42·9
Textiles and textile products	9,385	20,824	14,043	11,560	16,717	13,410	3,391	2,703	604	169	92,806	43·1
Wood and paper products	5,020	5,741	4,670	3,484	4,235	2,186	1,633	896	844	160	28,869	41·9
Iron and its products	4,804	9,857	4,457	7,570	12,824	5,730	8,539	3,048	4,070	1,180	62,079	46·2
Non-ferrous metal products	2,805	5,666	2,773	3,658	4,254	5,900	4,252	619	485	38	30,450	44·5
Non-metallic mineral products	289	772	403	416	1,181	216	304	44	95	22	3,742	44·2
Chemicals and allied products	2,658	6,983	2,616	2,864	10,770	817	3,823	121	744	26	31,422	44·0
Miscellaneous industries	1,366	1,814	1,677	2,003	810	445	291	146	67	22	8,641	41·3

[1] Including overtime.

[2] Exclusive of "dairy factories" and "fish-curing and -packing" plants.

19.—Male Wage-Earners in the Forty Leading Industries Working Specified Weekly Hours[1] in Month of Highest Employment, 1944

NOTE.—Industries ranked according to the annual number of male wage-earners employed.

	Industry	Hours Worked per Week										Total Wage-Earners	Average Hours Worked per Week	
		30 or Less	31-43	44	45-47	48	49-50	51-54	55	56-64	65 or Over			
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
1	Shipbuilding and repairs	3,218	7,271	19,617	5,861	10,067	3,122	2,738	2,249	9,065	5,555	68,763	48·3	1
2	Aircraft	2,445	5,524	815	4,178	11,251	2,051	14,313	3,321	8,837	3,602	56,337	50·6	2
3	Sawmills	1,409	1,797	1,598	1,225	12,651	2,341	8,167	2,478	30,035	1,419	63,120	54·1	3
4	Pulp and paper	1,653	2,352	578	1,343	11,375	1,994	4,072	765	6,595	3,625	34,352	51·4	4
5	Railway rolling-stock	479	3,370	8,360	1,952	9,718	1,748	1,641	388	1,046	256	28,958	46·1	5
6	Primary iron and steel	1,113	3,589	1,345	1,727	10,539	1,210	2,319	1,090	5,442	1,219	29,593	49·3	6
7	Miscellaneous chemical products	1,346	3,088	947	1,559	10,622	1,232	7,947	298	1,830	759	29,628	48·2	7
8	Miscellaneous iron and steel products	1,306	3,510	804	2,311	6,308	2,082	1,831	717	5,335	3,477	27,681	50·9	8
9	Electrical apparatus and supplies	937	1,918	1,214	2,630	2,316	6,581	3,916	1,697	1,868	489	23,566	48·8	9
10	Non-ferrous metal smelting and refining	506	1,302	212	1,365	16,710	368	451	76	1,368	119	22,477	47·7	10
11	Machinery	758	1,786	1,859	1,430	1,154	3,293	3,628	2,450	3,677	1,054	21,089	50·8	11
12	Automobiles	656	2,308	1,378	2,692	9,062	896	1,537	132	914	54	19,629	46·3	12
13	Bread and other bakery products	943	515	470	599	3,847	1,584	4,017	1,425	3,433	335	17,168	50·4	13
14	Slaughtering and meat packing	1,321	1,657	501	1,231	3,171	2,870	2,696	924	2,147	522	17,040	48·4	14
15	Automobile supplies	867	1,698	542	1,727	2,007	2,371	2,196	821	2,325	629	15,183	49·1	15
16	Castings, iron	645	1,370	901	1,299	1,643	2,143	1,979	846	2,188	1,394	14,408	50·7	16
17	Rubber goods, including rubber footwear	907	2,170	509	1,458	2,299	1,848	2,189	406	1,431	275	13,492	47·0	17
18	Brass and copper products	970	1,960	906	813	2,464	1,821	2,093	311	2,166	787	14,291	48·6	18
19	Cotton yarn and cloth	221	218	32	183	2,384	7,066	407	851	506	234	12,102	49·8	19
20	Hardware, tools and cutlery	639	974	809	880	1,006	1,839	1,530	2,037	2,345	655	12,714	50·8	20
21	Sheet metal products	774	1,368	1,093	1,135	1,842	2,220	1,321	813	1,225	602	12,393	48·3	21
22	Furniture	689	1,067	1,075	3,236	732	1,085	1,176	1,903	483	162	11,608	47·2	22
23	Agricultural implements	226	665	302	2,171	4,430	629	1,277	711	898	117	11,426	48·6	23
24	Planing mills, sash and door factories	720	797	1,208	672	874	1,909	1,274	883	2,272	300	10,909	49·6	24
25	Boots and shoes, leather	530	1,327	776	1,749	976	1,899	1,021	701	312	58	9,349	46·3	25
26	Printing and publishing	676	2,128	1,322	1,094	1,706	395	315	75	265	133	8,109	43·3	26
27	Bridge and structural steel	599	792	1,290	1,145	317	2,347	675	112	808	124	8,209	46·8	27
28	Printing and bookbinding	568	989	3,143	844	904	335	349	97	347	204	7,780	44·6	28
29	Fruit and vegetable preparations	4,717	1,568	282	647	450	675	964	599	3,141	4,449	17,492	49·0	29
30	Clothing, men's, factory	185	1,869	2,848	429	1,055	298	181	26	76	12	6,979	43·0	30
31	Hosiery and knitted goods	263	419	223	732	1,672	1,026	686	685	491	153	6,350	48·9	31
32	Acids, alkalies and salts	234	402	313	187	3,392	150	332	93	1,050	138	6,291	49·0	32
33	Machine shops	715	735	797	539	756	920	950	331	1,126	685	7,554	49·0	33
34	Silk and artificial silk	270	549	113	443	742	1,582	596	487	1,011	342	6,135	50·4	34
35	Petroleum products	108	846	1,956	141	1,746	104	312	35	316	71	5,635	45·7	35
36	Heating and cooking apparatus	192	527	225	490	1,445	843	515	386	796	164	5,583	49·3	36
37	Breweries	283	239	740	303	552	387	589	277	1,515	577	5,462	52·3	37
38	Clothing, women's, factory	316	2,048	1,335	549	690	187	143	16	43	4	5,331	41·5	38
39	Flour and feed mills	296	272	201	139	1,601	343	779	118	1,126	432	5,307	51·2	39
40	Boxes, wooden	535	384	201	251	578	630	566	1,149	832	284	5,410	49·8	40
	Totals, Forty Leading Industries [2]	**35,235**	**67,368**	**62,840**	**53,359**	**157,054**	**66,424**	**83,688**	**32,779**	**110,686**	**35,470**	**704,903**	**49·2**	
	Totals, All Industries [2]	**45,414**	**83,293**	**76,141**	**67,306**	**182,798**	**80,878**	**100,621**	**42,214**	**128,751**	**42,618**	**850,034**	**49·1**	

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[1] Includes overtime.

[2] Figures are exclusive of those for "butter and cheese" and "fish-curing and-packing" which are among the leading industries. Figures for these industries are not available.

20.—Female Wage-Earners in the Forty Leading Industries Working Specified Weekly Hours[1] in Month of Highest Employment, 1944

NOTE.—Industries ranked according to the annual number of female wage-earners employed.

	Industry	Hours Worked per Week										Total Wage-Earners	Average Hours Worked per Week	
		30 or Less	31-43	44	45-47	48	49-50	51-54	55	56-64	65 or Over			
		No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
1	Miscellaneous chemical products	1,767	4,534	943	1,912	9,836	619	3,601	101	581	12	23,906	44·9	1
2	Electrical apparatus and supplies	1,615	3,423	1,731	2,838	1,690	4,473	3,382	559	199	12	19,922	44·9	2
3	Aircraft	990	2,574	503	2,223	4,417	1,020	5,771	1,486	1,572	361	20,917	48·3	3
4	Clothing, women's, factory	2,413	6,676	4,306	2,460	2,341	294	190	21	28	–	18,729	40·0	4
5	Clothing, men's; factory	1,215	4,331	5,424	1,575	4,308	1,332	347	12	19	1	18,564	42·8	5
6	Hosiery and knitted goods	1,848	3,337	963	2,521	3,141	1,985	776	778	79	2	15,430	43·1	6
7	Cotton yarn and cloth	677	552	79	384	2,668	5,234	478	424	37	–	10,533	47·1	7
8	Miscellaneous iron and steel products	1,273	2,026	286	2,007	3,349	792	507	224	1,284	604	12,352	46·1	8
9	Boots and shoes, leather	665	1,812	770	1,585	812	1,495	535	247	63	4	7,988	43·7	9
10	Biscuits, confectionery, cocoa, etc	2,156	1,491	665	1,652	1,199	574	344	448	91	–	8,620	40·4	10
11	Bread and other bakery products	1,479	811	695	773	2,766	388	565	218	158	32	7,885	42·6	11
12	Fruit and vegetable preparations	5,598	3,191	553	1,229	1,002	1,199	1,485	637	3,113	1,588	19,595	43·7	12
13	Tobacco, cigars and cigarettes	715	1,862	302	546	1,287	336	747	102	347	5	6,249	43·1	13
14	Rubber goods, including rubber footwear	1,121	1,715	318	843	647	968	613	97	237	29	6,588	41·8	14
15	Boxes and bags, paper	951	1,340	616	721	609	676	421	66	82	–	5,482	41·4	15
16	Slaughtering and meat packing	677	1,189	191	737	1,054	679	440	74	94	17	5,152	43·0	16
17	Printing and bookbinding	1,351	1,025	1,689	471	579	130	144	13	114	38	5,554	39·8	17
18	Silk and artificial silk	400	710	185	594	689	1,175	243	472	76	32	4,576	45·6	18
19	Sheet metal products	630	921	486	786	772	929	319	374	148	45	5,410	44·3	19
20	Automobile supplies	638	1,332	290	556	554	631	487	89	422	22	5,021	43·6	20
21	Woollen cloth	442	550	228	556	234	898	589	358	87	5	3,947	45·3	21
22	Brass and copper products	359	879	437	265	588	991	631	20	203	12	4,385	45·0	22
23	Hardware, tools and cutlery	428	587	251	434	283	941	395	309	190	49	3,867	45·6	23
24	Medicinal and pharmaceutical preparations	385	1,333	1,017	521	278	60	52	9	31	7	3,693	40·5	24
25	Miscellaneous food products	1,386	794	574	631	420	75	72	9	16	2	3,979	37·1	25
26	Scientific and professional equipment	171	478	480	1,111	170	90	87	4	14	2	2,607	43·2	26
27	Miscellaneous paper products	615	659	361	369	397	356	255	37	48	3	3,100	41·2	27
28	Hats and caps	415	1,388	451	308	289	97	42	16	11	3	3,020	39·2	28
29	Shipbuilding and repairs	147	310	1,586	173	335	97	152	13	88	13	2,914	44·2	29
30	Machinery	209	548	338	247	300	317	427	207	134	17	2,744	45·5	30
31	Miscellaneous leather goods	411	576	509	430	327	115	54	4	11	–	2,437	40·6	31
32	Clothing, contractors, men's	98	314	520	207	729	113	94	3	10	–	2,088	44·4	32
33	Agricultural implements	35	147	91	262	1,010	121	153	135	85	1	2,040	45·8	33
34	Woollen yarn	330	324	55	263	169	655	96	63	33	1	1,989	43·2	34
35	Printing and publishing	490	422	378	193	302	99	59	12	29	12	1,996	39·6	35
36	Furniture	279	396	287	612	191	118	108	75	13	14	2,093	42·5	36
37	Corsets	103	346	180	830	292	162	–	–	–	–	1,913	43·7	37
38	Fur goods	196	628	275	131	256	82	177	32	203	58	2,038	44·1	38
39	Gloves and mittens, leather	342	228	314	241	461	258	47	2	5	–	1,898	42·0	39
40	Glass products	170	358	162	277	558	147	97	38	58	21	1,886	44·3	40
	Totals, Forty Leading Industries[2]	**35,190**	**56,117**	**29,489**	**34,474**	**51,309**	**30,721**	**24,982**	**7,788**	**10,013**	**3,024**	**283,107**	**43·7**	
	Totals, All Industries[2]	**42,403**	**67,987**	**36,699**	**41,279**	**62,226**	**35,595**	**27,959**	**9,751**	**11,544**	**3,428**	**338,871**	**43·6**	

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[1] Includes overtime.

[2] Figures are exclusive of those for "butter and cheese" and "fish-curing and-packing" which are among the leading industries. Figures for these industries are not available.

Subsection 3.—Salaries and Wages in Manufacturing Industries

In 1944, the 28,483 establishments covered, employed 192,558 salaried employees and 1,030,324 wage-earners, a total of 1,222,882 persons. Out of every 1,000 persons employed in manufacturing 157 were classed as salary earners and 843 as wage-earners; the former earned 20·6 p.c. and the latter 79·4 p.c. of the total amount paid out as remuneration for services.

A notable feature during the past few years was the reduction in the disparity between average annual salaries and wages. Whereas in 1939 average annual wages were only 55·8 p.c. of average annual salaries, in 1943 the percentage rose to 75·8 and declined to 72·0 in 1944. This tendency towards equalization was, in part, due to the controls adopted by the Government which tended to stabilize salaries more so than wages. The increase in average wages was also influenced by the fact that large numbers of wage-earners were employed in the highly paid iron and steel industries and by the increase in number of hours worked, some of it at overtime pay.

Ontario has a larger proportion of females among its salaried employees than the other provinces. The same situation prevails in Quebec with regard to wage-earners, due, no doubt, to the textile industries of the Province. The importance of the textile industries in providing employment to females is strikingly illustrated by the fact that of all female wage-earners engaged in the manufacturing industries of Canada in 1944, 29 p.c. were found in the textile group. Normally, the percentage is much higher. In 1942 to 1944 large numbers of female wage-earners were employed in the aircraft and miscellaneous chemical industries and for this reason the percentage employed in the textile industries declined.

The average salary in Canada in 1944 amounted to $2,171 which was $425 or 24·3 p.c. higher than in 1939. Salaried employees in Ontario with $2,273 received the highest salary. British Columbia came second with $2,190 and Quebec third with $2,159. The fact that head offices of many large corporations are located at Montreal, Toronto, Vancouver and Winnipeg tends to raise the average salaries in the provinces in which these cities are located.

21.—Salaries and Wages Paid in Manufacturing Industries, by Provinces and Industrial Groups, 1944, with Totals for Significant Years, 1917-43

Year	Salaries				Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
	No.	No.	$	$	No.	No.	$	$
1917	**64,918**		**85,353,667**	**1,315**	**541,605**		**412,448,177**	**762**
1920	**78,334**		**141,837,361**	**1,811**	**520,559**		**575,656,515**	**1,106**
1922	**71,586**		**129,836,831**	**1,814**	**384,670**		**359,560,399**	**935**
1924	**54,379**	**15,641**	**130,344,822**	**1,857**	**322,719**	**94,871**	**404,122,853**	**968**
1926 [1]	**58,245**	**17,092**	**142,353,900**	**1,890**	**374,244**	**109,580**	**483,328,342**	**999**
1929 [1]	**67,731**	**21,110**	**175,553,710**	**1,976**	**454,768**	**122,922**	**601,737,507**	**1,042**
1930 [1]	**64,161**	**20,550**	**169,992,216**	**2,007**	**416,790**	**113,195**	**527,563,162**	**995**
1931 [2]	**71,198**	**20,293**	**172,289,095**	**1,883**	**337,636**	**99,513**	**415,277,895**	**950**
1932	**68,264**	**18,786**	**151,355,790**	**1,739**	**288,817**	**92,966**	**322,245,926**	**844**

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[1] The averages of wage-earners and earnings for the years 1931 to 1943 are strictly comparable with those for the years up to 1925 but not with those for the intervening years. The figures for the latest years —as for the earliest—represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts only to about 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.

[2] The increase in the number of salaried employees in 1931 is due to the following changes in method: (1) Prior to 1931 working proprietors, such as bakers, sawmill operators, small clothing manufacturers, etc., were required to report themselves as wage-earners. In 1931 and subsequent years, however, all such proprietors reported themselves as salaried employees. (2) In 1931 travelling salesmen who were attached to the plant, and devoted all or the greater part of their time to selling the products of that plant, were included with salaried employees. Prior to this they were not reported at all.

21.—Salaries and Wages Paid in Manufacturing Industries, by Provinces and Industrial Groups, 1944, with Totals for Significant Years, 1917-43—concluded

Year	Salaries				Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
	No.	No.	$	$	No.	No.	$	$
1933	**67,875**	**18,761**	**139,317,946**	**1,608**	**287,266**	**94,756**	**296,929,878**	**777**
1934	**71,963**	**20,132**	**148,760,126**	**1,615**	**326,598**	**101,119**	**355,090,929**	**830**
1935	**76,213**	**21,717**	**160,455,080**	**1,638**	**353,790**	**104,944**	**399,012,697**	**870**
1936	**81,409**	**23,008**	**173,198,057**	**1,659**	**379,977**	**109,965**	**438,873,377**	**896**
1937	**91,092**	**24,735**	**195,983,475**	**1,692**	**427,285**	**117,339**	**525,743,562**	**965**
1938	**95,270**	**25,319**	**207,386,381**	**1,719**	**409,172**	**112,255**	**498,282,208**	**956**
1939	**98,165**	**26,607**	**217,839,334**	**1,746**	**415,488**	**117,854**	**519,971,819**	**975**
1940	**104,267**	**31,493**	**241,599,761**	**1,780**	**491,439**	**135,045**	**679,273,104**	**1,084**
1941	**117,251**	**41,693**	**286,336,861**	**1,801**	**626,825**	**175,409**	**978,525,782**	**1,220**
1942	**123,125**	**54,062**	**334,870,793**	**1,890**	**732,319**	**242,585**	**1,347,934,049**	**1,383**
1943	**128,679**	**64,516**	**388,857,505**	**2,013**	**762,854**	**285,019**	**1,598,434,879**	**1,525**
PROVINCES, 1944[1]								
Prince Edward Island	274	90	340,735	936	956	466	1,354,028	952
Nova Scotia	3,357	1,393	8,038,033	1,692	28,059	5,003	51,902,378	1,570
New Brunswick	2,393	910	5,927,148	1,794	15,829	4,032	26,417,932	1,330
Quebec	43,613	19,537	136,345,080	2,159	254,412	106,553	531,810,973	1,473
Ontario	58,832	35,547	214,556,603	2,273	330,502	139,511	760,481,457	1,618
Manitoba	4,504	2,153	12,970,760	1,948	24,737	9,543	49,787,321	1,452
Saskatchewan	2,169	885	4,629,279	1,516	7,562	1,745	13,073,824	1,405
Alberta	2,855	1,272	7,292,403	1,767	13,912	4,147	25,935,326	1,436
British Columbia	8,840	3,912	27,933,075	2,190	68,622	14,688	150,706,043	1,809
Yukon and Northwest Territories	21	1	32,478	1,476	44	1	86,494	1,922
Canada, 1944	**126,858**	**65,700**	**418,065,594**	**2,171**	**744,635**	**285,689**	**1,611,555,776**	**1,564**
INDUSTRIAL GROUP, 1944[1]								
Vegetable products	16,912	7,701	49,702,771	2,019	65,788	40,278	134,241,177	1,266
Animal products	11,588	5,026	31,018,679	1,867	53,797	23,784	98,196,710	1,266
Textiles and textile products	10,924	6,851	44,529,327	2,505	51,284	84,063	151,276,354	1,118
Wood and paper products	26,744	10,239	70,547,540	1,908	128,117	24,574	213,889,019	1,401
Iron and its products	33,745	19,657	123,083,083	2,305	308,747	49,795	695,369,371	1,939
Non-ferrous metal products	10,643	6,469	39,496,337	2,308	61,300	25,902	143,412,955	1,645
Non-metallic mineral products	3,840	1,560	12,458,871	2,307	22,964	3,226	43,671,467	1,667
Chemicals and allied products	8,742	5,971	34,080,087	2,316	41,045	26,064	103,342,890	1,540
Miscellaneous industries	3,720	2,226	13,148,899	2,211	11,593	8,003	28,155,833	1,437

[1] For statistics of annual earnings of wage-earners, by sex, see Table 24. p. 557

The average wage in Canada in 1944 amounted to $1,564 which was $589 or 60·4 p.c. higher than in 1939. The manufacturing industries of British Columbia paid the highest average wages of $1,809 per annum, followed by Ontario with $1,618, Nova Scotia $1,570, Quebec $1,473, Manitoba $1,452, etc. The high figures shown for Yukon and the Northwest Territories in regard to average wages are due to the unusual conditions under which industry is carried on in these regions and are not representative. Statistics of the distribution of employees by provinces and groups as well as average annual earnings are given in Table **21**, and for a subdivision of wage-earners by sex, see Table **24**.

Average Annual Earnings in the Forty Leading Industries.—In only nine industries did average salaries exceed $2,500 in 1944; pulp and paper, bridge and structural steel, breweries, automobiles, petroleum products, men's factory clothing, railway rolling-stock, silk, and cotton yarn and cloth. In 24 industries they ranged between $2,000 and $2,500, in four they ranged between $1,500 and $2,000, and in the remaining three they were below $1,500. The lowest salaries were reported by the sawmilling, butter and cheese, and bread industries, each of which includes a large proportion of small establishments.

The highest annual wages, those above $1,900, were paid in nine industries, in all of which the proportion of skilled workers is high and the proportion of female workers is low. The automobile industry had the highest average wages in this group, $2,347, followed by bridge and structural steel with $2,111, shipbuilding and repairs $2,055, railway rolling-stock $2,010, aircraft $1,998, miscellaneous iron and steel products $1,983, petroleum products $1,953, primary iron and steel $1,930, and scientific and professional equipment $1,923. In twelve other industries average wages ranged between $1,600 and $1,900 in all of which the proportion of female workers is low. In fifteen other industries average wages ranged between $1,100 and $1,600, while in the remaining four they were below $1,100. The latter group includes industries made up of a large number of small establishments in which the proportion of female workers is usually high. Fruit and vegetable preparations, biscuits and confectionery, hosiery and knitted goods, and leather boots and shoes are the industries included in this group. Employment by sex and average annual earnings in the forty leading industries is given in Table 22, and the annual earnings by sex in Tables 25 and 26.

22.—Salaries and Wages Paid in the Forty Leading Industries, 1944, with Comparative Figures of Average Salaries and Wages Paid in 1943

Note.—Industries ranked according to the aggregate salaries and wages paid. For a subdivision of annual earnings of wage-earners, by sex, see Tables 25 and 26.

	Industry	Salaries					Wages				
		Salaried Employees		Total Salaries	Average Salaries		Wage-Earners		Total Wages	Average Wages	
		Male	Female		1944	1943	Male	Female		1944	1943
		No.	No.	$	$	$	No.	No.	$	$	$
1	Aircraft	8,402	5,571	29,957,380	2,144	1,545	48,391	17,208	131,097,630	1,998	1,871
2	Shipbuilding and repairs	3,167	1,452	10,626,142	2,301	1,881	59,960	2,497	128,341,104	2,055	2,036
3	Electrical apparatus and supplies	5,691	3,828	21,442,886	2,253	2,141	21,903	17,412	60,861,574	1,548	1,518
4	Miscellaneous chemical products	3,153	2,298	12,017,726	2,205	1,941	25,134	19,852	69,991,103	1,556	1,486
5	Pulp and paper	3,948	1,540	15,617,507	2,846	2,724	31,148	1,260	60,215,901	1,858	1,787
6	Miscellaneous iron and steel products	3,247	2,019	12,214,208	2,319	2,159	22,752	8,945	62,862,667	1,983	1,946
7	Railway rolling-stock	1,786	373	5,583,224	2,588	2,256	27,293	459	55,771,990	2,010	1,925
8	Primary iron and steel	1,556	1,008	6,408,337	2,499	2,329	27,055	1,144	54,428,694	1,930	1,883
9	Automobiles	2,112	1,221	8,893,269	2,668	2,505	18,869	297	44,986,713	2,347	2,351
10	Sawmills	6,962	537	7,123,598	950	990	35,053	964	44,392,487	1,233	1,155
11	Machinery	3,297	2,008	11,894,182	2,242	2,137	19,084	2,303	38,558,387	1,803	1,812
12	Non-ferrous metal smelting and refining	2,445	926	7,816,181	2,319	2,122	19,550	1,006	36,720,810	1,786	1,768
13	Slaughtering and meat packing	2,871	1,359	8,993,885	2,126	2,028	15,050	4,587	29,703,904	1,514	1,483
14	Automobile supplies	1,437	1,013	5,638,778	2,302	2,188	13,808	4,108	33,032,952	1,844	1,823
15	Rubber goods, including rubber footwear	2,240	1,285	7,793,127	2,211	2,089	12,358	5,538	28,185,590	1,575	1,488
16	Clothing, men's, factory	2,439	1,263	9,610,626	2,596	2,313	6,508	16,806	25,756,908	1,105	1,040
17	Bread and other bakery products	3,209	1,212	6,531,441	1,477	1,406	16,090	7,019	28,632,695	1,239	1,191
18	Clothing, women's, factory	2,451	1,524	9,717,205	2,445	2,242	4,833	17,002	24,952,153	1,143	1,061
19	Brass and copper products	1,295	822	5,235,981	2,473	2,375	12,169	3,347	28,254,373	1,821	1,804
20	Printing and publishing	5,593	3,313	16,007,556	1,797	1,738	7,638	1,784	15,614,098	1,657	1,575
21	Hardware, tools and cutlery	1,290	1,066	5,637,301	2,393	2,315	10,898	3,105	24,153,375	1,725	1,634
22	Castings, iron	1,015	562	3,722,871	2,361	2,213	13,317	665	25,229,250	1,804	1,758
23	Cotton yarn and cloth	687	522	3,096,019	2,561	2,568	11,203	9,488	24,769,524	1,197	1,124
24	Sheet metal products	1,321	832	4,790,036	2,225	2,083	10,533	4,166	22,350,937	1,521	1,488

22.—Salaries and Wages Paid in the Forty Leading Industries, 1944, with Comparative Figures of Average Salaries and Wages Paid in 1943—concluded

	Industry	Salaries					Wages				
		Salaried Employees		Total Salaries	Average Salaries		Wage-Earners		Total Wages	Average Wages	
		Male	Female		1944	1943	Male	Female		1944	1943
		No.	No.	$	$	$	No.	No.	$	$	$
25	Hosiery and knitted goods	1,152	938	5,044,705	2,414	2,276	6,199	14,650	20,490,572	983	934
26	Agricultural implements	1,280	726	4,237,401	2,112	1,946	10,222	1,825	21,231,682	1,762	1,718
27	Butter and cheese	3,440	1,618	6,550,880	1,295	1,218	11,935	1,629	18,807,590	1,387	1,253
28	Printing and bookbinding	2,764	1,256	7,879,636	1,960	1,869	7,168	4,454	14,946,082	1,286	1,247
29	Boots and shoes, leather	1,497	634	4,947,699	2,322	2,190	8,968	7,539	17,688,495	1,072	1,023
30	Scientific and professional equipment	1,546	971	5,648,077	2,244	1,898	4,497	2,830	14,086,226	1,923	1,816
31	Furniture	1,278	519	3,853,790	2,145	2,037	10,475	1,774	15,727,038	1,284	1,226
32	Bridge and structural steel	861	354	3,430,862	2,824	2,786	7,223	346	15,979,043	2,111	2,025
33	Biscuits, confectionery, cocoa, etc	1,801	793	5,969,940	2,301	2,211	4,244	7,422	11,355,637	973	931
34	Fruit and vegetable preparations	1,204	637	3,432,826	1,865	1,769	6,622	6,905	12,979,162	960	909
35	Acids, alkalies and salts	1,031	415	3,604,323	2,493	2,388	6,026	492	12,148,459	1,864	1,756
36	Silk and artificial silk	647	465	2,867,044	2,578	2,431	5,829	4,374	12,096,545	1,186	1,125
37	Planing mills, sash and door factories	1,462	424	3,218,535	1,707	1,714	9,012	461	11,640,083	1,229	1,201
38	Machine shops	1,132	444	3,378,029	2,143	1,979	5,840	592	11,139,054	1,732	1,663
39	Petroleum products	1,122	317	3,830,988	2,662	2,615	5,177	193	10,486,951	1,953	1,947
40	Breweries	1,241	327	4,410,331	2,813	2,712	4,952	605	9,778,202	1,760	1,679
	Totals, Forty Leading Industries	**95,072**	**48,392**	**308,674,532**	**2,152**	-	**604,986**	**207,053**	**1,329,445,640**	**1,637**	-
	Grand Totals, All Industries	**126,858**	**65,700**	**418,065,594**	**2,171**	**2,013**	**744,635**	**285,689**	**1,611,555,776**	**1,564**	**1,525**

Average Annual, Weekly and Hourly Earnings.—In comparing earnings by provinces or groups, consideration should be given to the type of industries in each case since the distribution of industries has very definitely a regional significance. In some industries a labour force possessing deftness and speed or the ability to exercise muscular strength is necessary, in others the labour force must exercise craftsmanship or possess a high degree of technical knowledge. Workers in these latter industries naturally command relatively higher wages than those employed in industries whose employees are routine workers.

The ranking of provinces and industries as regards annual earnings is in many cases different to that of weekly or hourly earnings since the factors of number of weeks worked per year and number of hours worked per week enter into the picture. So that, while in general the same observations apply, a close study of the differences between the averages shown in Tables 21 and 22 will be of value to the student.

The figures given in Tables 23 to 26 are based on an analysis of a pay-list covering one week in the month of highest employment. For this reason the figures do not refer to any particular month, since the month of highest employment might be May for one firm and October for another; they represent the summation of the different months of highest employment as reported by all the firms. For a particular industry, however, the month of highest employment is more significant as, in such case, it coincides for a great number of firms engaged in the same industry.

Average weekly earnings of male wage-earners for manufacturing as a whole amounted to $34.95 in 1944, an increase of $12.72 or 57·2 p.c. as compared with 1939. Average hourly earnings advanced from 46·2 cents in 1939 to 71·2 cents in 1944, an increase of 54·1 p.c. Annual earnings at $1,761 were 63·7 p.c. higher than in 1939.

Female wage-earners received on an average $20.89 per week in 1944, an increase of $8.11 or 63·5 p.c. as compared with 1939. Hourly earnings at 47·9 cents were 69·3 p.c. higher, while annual earnings at $1,051 were 69·8 p.c. higher.

23.—Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners, 1934-44

Year	Average Earnings			Hours Worked per week
	Annual	Weekly	Hourly	
	ALL WAGE-EARNERS			
	$	$	Cents	No.
1934	830	18·30	37·0	49·2
1935	870	18·50	37·8	48·7
1936	896	18·96	38·7	48·7
1937	965	[2]	[2]	48·8
1938	956	19·49	41·5	46·7
1939	975	20·14	42·2	47·2
1940	1,084	22·35	44·3	50·1
1941	1,220	24·95	49·0	50·5
1942	1,383	28·18	55·7	50·2
1943	1,525	29·87	60·6	48·8
1944	1,564	31·05	65·4	47·5
	MALE			
	$	$	Cents	No.
1934	930	20·31	40·7	49·9[1]
1935	966	20·41	41·3	49·4[1]
1936	995	20·92	42·3	49·4[1]
1937	[2]	[2]	[2]	[2]
1938	1,055	21·49	45·4	47·3
1939	1,076	22·23	46·2	48·1
1940	1,202	24·83	48·8	50·9
1941	1,355	27·72	53·8	51·5
1942	1,558	31·75	61·9	51·3
1943	1,726	33·80	67·1	50·4
1944	1,761	34·95	71·2	49·1
	FEMALE			
	$	$	Cents	No.
1934	539	11·80	25·1	46·9[1]
1935	570	12·04	25·9	46·5[1]
1936	577	12·20	26·2	46·5[1]
1937	[2]	[2]	[2]	[2]
1938	594	12·10	27·1	44·6
1939	619	12·78	28·3	45·2
1940	655	13·52	28·6	47·3
1941	736	15·05	32·0	47·6
1942	854	17·41	37·1	46·9
1943	987	19·33	43·1	44·8
1944	1,051	20·89	47·9	43·6

[1] Estimated on the basis of hours worked by female wage-earners in 1938 and 1939 as compared with those worked by male wage-earners in those years. [2] Not available.

24.—Average Annual, Weekly and Hourly Earnings of Wage-Earners, Classified by Sex, Province and Industrial Group, 1944

Province or Industrial Group	Average Earnings			Hours Worked per Week
	Annual	Weekly	Hourly	
	MALE			
	$	$	Cents	No.
Prince Edward Island	1,172	28·10	50·0	56·3
Nova Scotia	1,677	34·01	68·0	50·0
New Brunswick	1,474	29·19	57·1	51·1
Quebec	1,671	33·53	65·6	51·1
Ontario	1,843	36·30	75·4	48·1
Manitoba	1,653	32·36	68·6	47·2
Saskatchewan	1,500	29·99	58·9	50·9
Alberta	1,568	31·50	64·4	48·9
British Columbia	1,920	38·08	84·3	45·2
Yukon and Northwest Territories	1,922	45·79	91·0	50·3
Canada [1]	**1,761**	**34·95**	**71·2**	**49·1**
Vegetable products	1,522	29·15	59·0	49·4
Animal products [1]	1,445	30·21	63·5	47·6
Textiles and textile products	1,482	29·49	61·4	48·0
Wood and paper products	1,508	29·48	58·1	50·7
Iron and its products	2,003	40·53	82·5	49·1
Non-ferrous metal products	1,846	35·65	74·0	48·2
Non-metallic mineral products	1,750	34·18	70·5	48·5
Chemicals and allied products	1,777	34·40	71·7	48·0
Miscellaneous industries	1,664	30·81	66·8	46·1
	FEMALE			
	$	$	Cents	No.
Prince Edward Island	500	12·00	27·0	44·5
Nova Scotia	968	19·63	42·0	46·8
New Brunswick	765	15·16	33·8	44·8
Quebec	1,001	20·09	44·6	45·0
Ontario	1,084	21·35	50·2	42·5
Manitoba	932	18·24	42·5	42·9
Saskatchewan	993	19·86	45·8	43·4
Alberta	996	20·01	44·8	44·7
British Columbia	1,288	25·57	58·4	43·8
Yukon and Northwest Territories	–	–	–	–
Canada [1]	**1,051**	**20·89**	**47·9**	**43·6**
Vegetable products	848	16·25	38·4	42·3
Animal products [1]	860	17·96	41·9	42·9
Textiles and textile products	895	17·82	41·3	43·1
Wood and paper products	844	16·50	39·4	41·9
Iron and its products	1,546	31·30	67·7	46·2
Non-ferrous metal products	1,169	22·56	50·7	44·5
Non-metallic mineral products	1,078	21·06	47·7	44·2
Chemicals and allied products	1,166	22·57	51·3	44·0
Miscellaneous industries	1,108	20·52	49·7	41·3

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[1] Exclusive of "butter and cheese" and "fish-curing and -packing" plants.

25.—The Forty Industries Employing the Greatest Numbers of Male Wage-Earners, Ranked According to the Average Annual, Weekly and Hourly Earnings, 1944

Note.—For the rank of these industries as regards the annual employment of male wage-earners, see Table 19.

	Industry	Average Weekly Earnings		Average Hourly Earnings		Average Annual Earnings		Average Hours Worked per Week
		Amount	Rank	Amount	Rank	Amount	Rank	
		$		$		$		No.
1	Automobiles	53·99	1	1·188	1	2,364	1	46·3
2	Aircraft	42·78	2	0·845	5	2,032	5	50·6
3	Miscellaneous iron and steel products	42·11	3	0·827	8	2,125	3	50·9
4	Bridge and structural steel	40·73	4	0·870	3	2,140	2	46·8
5	Shipbuilding and repairs	40·34	5	0·835	6	2,071	4	48·3
6	Automobile supplies	40·14	6	0·818	9	1,977	7	49·1
7	Railway rolling-stock	39·57	7	0·858	4	2,022	6	46·1
8	Primary iron and steel	39·45	8	0·800	12	1,955	9	49·3
9	Agricultural implements	39·00	9	0·802	11	1,848	16	48·6
10	Brass and copper products	38·55	10	0·793	13	1,943	10	48·6
11	Machine shops	38·42	11	0·784	15	1,800	22	49·0
12	Acids, alkalies and salts	38·33	12	0·782	16	1,891	12	49·0
13	Machinery	37·31	13	0·734	20	1,885	14	50·8
14	Hardware, tools and cutlery	37·04	14	0·729	21	1,915	11	50·8
15	Petroleum products	36·86	15	0·807	10	1,973	8	45·7
16	Electrical apparatus and supplies	36·78	16	0·754	18	1,883	15	48·8
17	Castings, iron	36·65	17	0·723	22	1,834	17	50·7
18	Clothing, women's, factory	36·51	18	0·882	2	1,794	23	41·5
19	Pulp and paper	36·44	19	0·709	24	1,887	13	51·4
20	Rubber goods, including rubber footwear	35·89	20	0·764	17	1,814	19	47·0
21	Printing and publishing	35·84	21	0·828	7	1,506	29	43·3
22	Breweries	35·62	22	0·681	28	1,821	18	52·3
23	Miscellaneous chemical products	34·70	23	0·720	23	1,803	20	48·2
24	Heating and cooking apparatus	34·03	24	0·690	26	1,605	28	49·3
25	Non-ferrous metal smelting and refining	33·78	25	0·708	25	1,803	21	47·7
26	Clothing, men's, factory	33·76	26	0·785	14	1,674	25	43·0
27	Sheet metal products	33·35	27	0·690	27	1,711	24	48·3
28	Slaughtering and meat packing	32·98	28	0·681	29	1,650	26	48·4
29	Printing and bookbinding	32·76	29	0·735	19	1,629	27	44·6
30	Hosiery and knitted goods	28·54	30	0·584	30	1,424	33	48·9
31	Flour and feed mills	28·46	31	0·558	33	1,453	31	51·2
32	Silk and artificial silk	28·08	32	0·557	34	1,425	32	50·4
33	Bread and other bakery products	27·88	33	0·553	35	1,464	30	50·4
34	Furniture	27·38	34	0·580	31	1,355	35	47·2
35	Cotton yarn and cloth	26·83	35	0·539	36	1,408	34	49·8
36	Sawmills	26·31	36	0·486	38	1,239	38	54·1
37	Boots and shoes, leather	26·17	37	0·565	32	1,281	36	46·3
38	Planing mills, sash and door factories	25·53	38	0·515	37	1,248	37	49·6
39	Boxes, wooden	24·04	39	0·483	39	1,217	39	49·8
40	Fruit and vegetable preparations	23·05	40	0·470	40	1,136	40	49·0
	Averages, Forty Leading Industries	35·83	–	**0·728**	–	**1,813**	–	**49·2**
	Averages, All Industries[1]	34·95	–	**0·712**	–	**1,761**	–	**49·1**

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[1] Exclusive of "butter and cheese" and "fish-curing and -packing" plants.

26.—The Forty Industries Employing the Greatest Numbers of Female Wage-Earners, Ranked According to the Average Annual, Weekly and Hourly Earnings, 1944

NOTE.—For the rank of these industries as regards the annual employment of female wage-earners, see Table 20.

	Industry	Average Weekly Earnings		Average Hourly Earnings		Average Annual Earnings		Average Hours Worked per Week
		Amount	Rank	Amount	Rank	Amount	Rank	
		$		Cents		$		No.
1	Aircraft	40·08	1	83·0	1	1,904	1	48·3
2	Shipbuilding and repairs	32·33	2	73·1	2	1,659	3	44·2
3	Miscellaneous iron and steel products	32·14	3	69·7	4	1,621	4	46·1
4	Scientific and professional equipment	31·29	4	72·4	3	1,695	2	43·2
5	Automobile supplies	28·38	5	65·1	5	1,398	5	43·6
6	Brass and copper products	27·36	6	60·8	6	1,380	6	45·0
7	Agricultural implements	27·08	7	59·1	7	1,283	7	45·8
8	Miscellaneous chemical products	23·94	8	53·3	8	1,244	8	44·9
9	Fur goods	22·36	9	50·7	9	1,032	16	44·1
10	Machinery	22·17	10	48·7	13	1,120	10	45·5
11	Electrical apparatus and supplies	22·00	11	49·0	12	1,126	9	44·9
12	Glass products	21·54	12	48·6	15	1,096	11	44·3
13	Slaughtering and meat packing	21·23	13	49·4	10	1,063	12	43·0
14	Rubber goods, including rubber footwear	20·61	14	49·3	11	1,041	14	41·8
15	Hardware, tools and cutlery	20·47	15	44·9	18	1,059	13	45·6
16	Sheet metal products	20·24	16	45·7	17	1,038	15	44·3
17	Clothing contractors, men's	19·57	17	44·1	19	868	23	44·4
18	Clothing, women's, factory	19·48	18	48·7	14	958	17	40·0
19	Tobacco, cigars and cigarettes	18·75	19	43·5	20	892	21	43·1
20	Cotton yarn and cloth	18·08	20	38·4	26	949	18	47·1
21	Hats and caps	18·02	21	46·0	16	899	20	39·2
22	Clothing, men's, factory	17·81	22	41·6	21	884	22	42·8
23	Furniture	17·45	23	41·1	22	863	25	42·5
24	Woollen cloth	17·44	24	38·5	25	910	19	45·3
25	Silk and artificial silk	17·08	25	37·5	29	866	24	45·6
26	Boots and shoes, leather	16·79	26	38·4	27	822	27	43·7
27	Medicinal and pharmaceutical preparations	16·41	27	40·5	23	813	28	40·5
28	Fruit and vegetable preparations	16·05	28	36·7	33	791	31	43·7
29	Miscellaneous paper products	15·97	29	38·8	24	794	30	41·2
30	Hosiery and knitted goods	15·95	30	37·0	32	796	29	43·1
31	Woollen yarn	15·87	31	36·7	34	838	26	43·2
32	Miscellaneous leather goods	15·53	32	38·3	28	773	33	40·6
33	Boxes and bags, paper	14·92	33	36·0	35	785	32	41·4
34	Printing and bookbinding	14·76	34	37·3	30	735	34	39·6
35	Corsets	14·75	35	33·8	39	703	38	43·7
36	Printing and publishing	14·73	36	37·2	31	619	40	39·6
37	Gloves and mittens, leather	14·27	37	34·0	38	704	37	42·0
38	Biscuits, confectionery, cocoa, etc.	12·64	38	34·2	36	729	35	40·4
39	Bread and other bakery products	21·20	39	32·4	40	725	36	42·6
40	Miscellaneous food products	13·81	40	34·1	37	673	39	37·1
	Averages, Forty Leading Industries	13·80	–	48·5	–	**1,068**	–	**43·7**
	Averages, All Industries[1]	**20·89**	–	47·9	–	**1,051**	–	**43·6**

[1] Exclusive of "butter and cheese" and "fish-curing and -packing" plants.

Real Earnings of Employees in Recent Years.—When the index number representing the average yearly wages is divided by the index number of the cost of living, on the same base, a measure of "real" wages is obtained. Index numbers for 1931 to 1944 are given in Table 27. In 1933, the height of the depression, real wages were 88·3 on the 1935-39 base. From then on they rose steadily except in 1938, and stood at 141·1 in 1944, an increase of about 60 p.c.

27.—Average Yearly Earnings, and Index Numbers of Earnings, Cost of Living and Real Wages of Wage-Earners, in Manufacturing Industries, 1931-44

Note.—Figures on the 1917 base, with qualifications as to comparability, for 1917 to 1930 are published at p. 421 of the 1939 Year Book.

Year	Wages Paid	Average Wage-Earners	Average Yearly Earnings	Index Numbers (1935–39=100)		
				Average Yearly Earnings	Cost of Living	Real Value of Average Yearly Earnings
	$	No.	$			
1931	415,277,895	437,149	950	101·9	109·1	93·4
1932	322,245,926	381,783	844	90·6	99·0	91·5
1933	296,929,878	382,022	777	83·4	94·4	88·3
1934	355,090,929	427,717	830	89·1	95·6	93·2
1935	399,012,697	458,734	870	93·3	96·2	97·0
1936	438,873,377	489,942	896	96·1	98·1	98·0
1937	525,743,562	544,624	965	103·5	101·2	102·3
1938	498,282,208	521,427	956	102·6	102·2	100·4
1939	519,971,819	533,342	975	104·6	101·5	103·1
1940	679,273,104	626,484	1,084	116·3	105·6	110·1
1941	978,525,782	802,234	1,220	130·9	111·7	117·2
1942	1,347,934,049	974,904	1,383	148·4	117·0	126·8
1943	1,598,434,879	1,047,873	1,525	163·6	118·4	139·0
1944	1,611,555,776	1,030,324	1,564	167·8	118·9	141·1

Percentages of Salaries and Wages to Net Value of Products.—Table 28 shows the relation between salaries and wages paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations, but the values out of which the wages of employees must come, in the long run, are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent, taxes, repairs, and all other overhead charges that ordinarily must be met. The percentage declined steadily with the increasing manufacturing production from 1924 to 1929, while from 1931 to 1935 and again in 1938 and 1939, due to decreased industrial activity, the percentage of salaries to value added was above normal. It should be borne in mind, however, that salaried employees increased 174 p.c. during the period 1924-44 while wage-earners increased but 147 p.c. The percentage of wages has fluctuated much less than that of salaries. The number of wage-earning employees may be more rapidly adjusted to the activity of the industry and wage levels likewise may be more readily adjusted to the price levels of the products. Of the increase in the net value of production since 1939 amounting to $2,484,724,109, $1,291,810,217 or 52·0 p.c. was passed along in increased salaries and wages.

28.—Percentages of Salaries and Wages Paid to the Total Net Values of Manufacturing Production, 1924-44

Year	Value Added by Processes of Manufacture[1]	Salaries Paid	Wages Paid	Percentages—		
				of Salaries to Value Added	of Wages to Value Added	of Total Salaries and Wages to Value Added
	$	$	$	p.c.	p.c.	p.c.
1924	1,075,458,459	130,344,822	404,122,853	12·1	37·6	49·7
1925	1,167,936,726	133,409,498	436,534,944	11·4	37·4	48·8
1926	1,305,168,549	142,353,900	483,328,342	10·9	37·0	47·9
1927	1,427,649,292	151,419,411	511,285,921	10·6	35·8	46·4
1928	1,597,887,676	162,903,007	558,568,627	10·2	35·0	45·2
1929	1,755,386,937	175,553,710	601,737,507	10·0	34·3	44·3
1930	1,522,737,125	169,992,216	527,563,162	11·2	34·6	45·8
1931	1,252,017,248	172,289,095	415,277,895	13·8	33·2	47·0
1932	955,960,724	151,355,790	322,245,926	15·8	33·7	49·5
1933	919,671,181	139,317,946	296,929,878	15·1	32·3	47·4
1934	1,087,301,742	148,760,126	355,090,929	13·7	32·7	46·4
1935	1,153,485,104	160,455,080	399,012,697	13·9	34·6	48·5
1936	1,289,592,672	173,198,057	438,873,377	13·4	34·0	47·4
1937	1,508,924,867	195,983,475	525,743,562	13·0	34·8	47·8
1938	1,428,286,778	207,386,381	498,282,208	14·5	34·9	49·4
1939	1,531,051,901	217,839,334	519,971,819	14·2	34·0	48·2
1940	1,942,471,238	241,599,761	679,273,104	12·0	35·0	47·0
1941	2,605,119,788	286,336,861	978,525,782	11·0	37·6	48·6
1942	3,309,973,758	334,870,793	1,347,934,049	10·1	40·7	50·8
1943	3,816,413,541	388,857,505	1,598,434,879	10·2	42·0	52·2
1944	4,015,776,010	418,065,594	1,611,555,776	10·4	40·2	50·6

[1] Equivalent to "net value of products"; see footnote 1, Table **1**, p. 510.

Subsection 4.—Size of Manufacturing Establishments

The size of the manufacturing establishment is generally measured either by the value of product, or by the number of employees, but each of these methods has its limitations. The latter takes no account of the differences in capital equipment at different times or in various industries and obviously the increased use of machinery, as in the flour-milling industry, may lead to an increase in production concurrently with a decrease in the number of employees. The former measure has to be adjusted for changes in the price level and, as between industries, it makes those in which the cost of raw materials is relatively high, appear to operate on a larger scale.

Size as Measured by Gross Value of Products.—While in 1922 the 420 establishments each producing over $1,000,000 had an aggregate value of products of $1,268,056,129 or 51 p.c. of the total production of all manufacturing industries, the 719 establishments producing over $1,000,000 each in 1929 had an aggregate value of products of $2,516,064,954, or 62 p.c. of the grand total for all manufacturing establishments—a very significant change in the short period of eight years. In 1931, however, the number of plants with a production of over $1,000,000 dropped again to 482, their output being valued at $1,451,658,954, or 53 p.c. of the total. With the increased production resulting from war needs, the number of plants with a production of $1,000,000 or over jumped to 1,376 in 1944, and their output was about 75 p.c. of the total value of manufactures.

29.—Manufacturing Establishments, Grouped According to Gross Value of Products, with Totals and Average Values of Products in each Class, for Canada, 1929, 1939, 1943 and 1944.

Group of Gross Values	1929[1]			1939[2]		
	Establishments	Total Production	Average per Establishment	Establishments	Total Production	Average per Establishment
	No.	$	$	No.	$	$
Under $25,000	14,024	106.735,470	7,611	15,623	120,903,054	7,738
$ 25,000 but under $ 50,000	2,802	99,529,725	35,521	2,803	99,558,383	35,519
50,000 " 100,000	2,209	156,308,744	70,760	2,215	156,410,769	70,614
100,000 " 200,000	1,688	237,532,492	140,718	1,584	225,582,130	142,413
200,000 " 500,000	1,519	504,218,217	331,941	1,285	390,626,844	303,990
500,000 " 1,000,000	636	443,597,677	697,481	689	466,441,130	676,983
1,000,000 " 5,000,000	601	1,217,866,089	2,026,400	520	1,091,293,939	2,098,642
5,000,000 and over	118	1,298,198,865	11,001,685	81	923,724,311	11,404,004
Totals and Averages	**23,597**	**4,063,987,279**	**172,225**	**24,800**	**3,474,540,560**	**140,102**
	1943			1944		
Under $25,000	13,954	124,794,223	8,943	13,942	128,782,147	9,237
$ 25,000 but under $ 50,000	3,781	135,438,061	35,821	4,011	143,023,914	35,658
50,000 " 100,000	3,216	228,807,450	71,147	3,442	245,273,500	71,259
100,000 " 200,000	2,390	341,815,362	143,019	2,513	355,235,489	141,359
200,000 " 500,000	2,108	664,348,960	315,156	2,256	714,546,348	316,731
500,000 " 1,000,000	916	647,958,228	707,378	943	661,670,696	701,666
1,000,000 " 5,000,000	1,006	2,115,862,125	2,103,243	1,089	2,294,546,053	2,107,021
5,000,000 and over	281	4,473,836,590	15,921,127	287	4,530,614,372	15,786,113
Totals and Averages	**27,652**	**8,732,860,999**	**315,813**	**28,483**	**9,073,692,519**	**318,565**

[1] Includes central electric stations and dyeing, cleaning and laundry establishments. [2] Exclusive of Yukon and the Northwest Territories.

Size as Measured by Number of Employees.—In 1923, establishments employing 501 hands or over accounted for 21·4 p.c. of the total number of employees engaged in manufacturing. By 1929 the proportion had increased to 27·3 p.c. of the total, thereby showing the increasing concentration of production into larger units. This tendency, however, was checked by the depression, the percentage having dropped in 1933 to 20·5 p.c. (central electric stations included). With the recovery in production since 1933, the percentage has risen again and in 1939 stood at 25·6. The same also holds true for establishments employing 101 hands or over. In 1923, they employed 58·6 p.c. of the total, in 1929, 61·9 p.c., in 1933, 55·7 p.c., in 1939, 61·5 p.c.

The impact of the War on the concentration of war industries into large units is illustrated by the increase in the number of establishments employing 500 hands or over. In 1939 such establishments numbered 172 and employed 25·6 p.c. of the total number of employees engaged in manufacturing. By 1944, the number had increased to 383 and the percentage of total employees to 47·0. In a further subdivision of this group in 1944 it was found that 226 establishments employed between 500 and 999 persons, 56 between 1,000 and 1,499, and 101 employed over 1,500. All told, there were 12 plants employing over 7,000 persons. The largest one had an employment of approximately 13,000 with the next three largest employing between 9,000 and 10,000. Three other plants employed between 8,000 and 9,000 persons while the remaining five plants in this group employed between 7,000 and 8,000 workers.

30.—Manufacturing Establishments, Classified by Number of Employees, by Provinces, 1944

Province	Up to 500	500 to 799	800 to 999	1,000 to 1,499	1,500 and over	Total Employees
Prince Edward Island	241	Nil	Nil	Nil	Nil	241
Nova Scotia	1,267	9	1	"	4	1,281
New Brunswick	930	3	2	2	Nil	937
Quebec	9,525	57	16	20	39	9,657
Ontario	10,539	92	30	25	44	10,730
Manitoba	1,281	Nil	1	3	5	1,290
Saskatchewan	1,051	3	Nil	Nil	Nil	1,054
Alberta	1,159	2	1	3	"	1,165
British Columbia	2,095	7	2	3	9	2,116
Yukon and Northwest Territories	12	Nil	Nil	Nil	Nil	12
Canada	**28,100**	**173**	**53**	**56**	**101**	**28,483**

31.—Establishments and Employees in Canadian Manufactures, Grouped According to Number of Employees per Establishment, 1929, 1939, 1943 and 1944

Group	1929[1]			1939[2]		
	Establishments	Employees	Average per Establishment	Establishments	Employees	Average per Establishment
	No.	No.	No.	No.	No.	No.
Under 5 employees	12,273	30,446	2·5	13,002	28,020	2·2
5 to 20 employees	6,160	62,310	10·1	6,985	68,151	9·8
21 " 50 "	2,531	81,846	32·3	2,330	75,324	32·3
51 " 100 "	1,262	90,238	71·5	1,158	81,646	70·5
101 " 200 "	745	103,944	139·5	695	97,063	139·7
201 " 500 "	444	136,397	307·2	458	139,687	305·0
501 and over	182	189,253	1,040·0	172	168,168	977·7
Totals and Averages	**23,597**	**694,434**	**29·4**	**24,800**	**658,059**	**26·5**
	1943			1944		
	No.	No.	No.	No.	No.	No.
Under 5 employees	13,154	29,288	2·2	13,208	29,958	2·3
5 to 14 employees	6,606	54,478	8·2	7,111	58,404	8·2
15 " 49 "	4,444	120,417	27·1	4,615	124,408	27·0
50 " 99 "	1,536	107,153	69·7	1,622	113,869	70·2
100 " 199 "	875	121,139	138·4	900	126,192	140·2
200 " 499 "	659	200,912	304·9	644	196,707	305·4
500 and over	378	607,681	1,607·6	383	573,344	1,497·0
Totals and Averages	**27,652**	**1,241,068**	**44·9**	**28,483**	**1,222,882**	**42·9**

[1] Includes central electric stations, dyeing, cleaning and laundry establishments. [2] Exclusive of Yukon and the Northwest Territories.

Size of Establishment in Leading Industries.—Table 32 summarizes the degree of concentration in some of the leading industries of Canada. Concentration is extremely marked in the case of automobiles, railway rolling-stock, aircraft, cotton yarn and cloth, shipbuilding and repairs, miscellaneous chemical products, non-ferrous metal smelting and refining, and pulp and paper; whereas in the case of bread and other bakery products, women's factory clothing, butter and cheese, and sawmills, the degree of concentration is low.

32.—Percentage Importance of Establishments, each Employing 200 or more Persons in the Twenty-Five Leading Industries, 1944

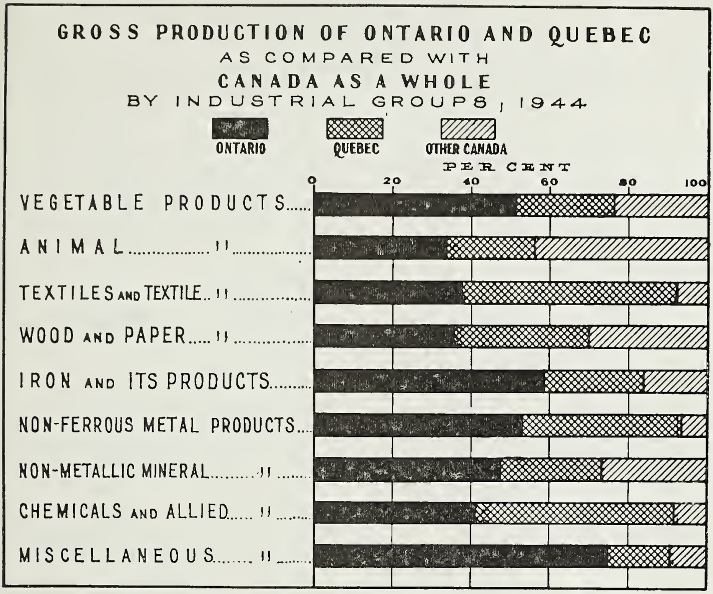
	Industry	Number of Such Establishments	Percentage of Total Number in the Industry	Percentage of Total Production in the Industry
1	Slaughtering and meat packing	27	17·6	79·8
2	Non-ferrous metal smelting and refining	15	93·7	98·6
3	Miscellaneous chemical products	22	9·6	92·4
4	Aircraft	24	53·3	98·3
5	Pulp and paper	57	54·8	91·4
6	Shipbuilding and repairs	33	35·1	94·5
7	Automobiles	4	80·0	99·7
8	Electrical apparatus and supplies	45	19·2	83·7
9	Iron and steel products, miscellaneous	27	15·9	92·3
10	Butter and cheese	11	0·5	12·2
11	Sawmills	21	0·4	21·1
12	Flour and feed mills	7	0·6	41·6
13	Primary iron and steel	31	48·4	91·4
14	Petroleum products	9	18·7	65·8
15	Rubber goods	19	33·9	94·4
16	Railway rolling-stock	22	59·4	96·5
17	Automobile supplies	24	23·1	83·1
18	Brass and copper products	22	13·6	78·4
19	Machinery	35	13·6	66·0
20	Clothing, men's, factory	32	7·7	41·1
21	Clothing, women's, factory	11	1·3	10·8
22	Bread and other bakery products	19	0·7	25·1
23	Cotton yarn and cloth	25	61·0	94·5
24	Sheet metal products	25	12·9	72·6
25	Fruit and vegetable preparations	9	2·0	29·4

PART II.—PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFACTURING PRODUCTION

This part of the Chapter is introduced by a general analysis of the concentration of the manufacturing industries in the provinces. In the sections that follow, the principal features of the manufactures of each province are brought out and finally the distribution of manufacturing throughout the principal cities and towns of the Dominion is shown.

Ontario and Quebec are by far the most important manufacturing provinces of Canada. Their combined production in 1944 amounted to $7,269,483,000 or over 80 p.c. of the gross value of manufactured products of the Dominion. The proximity of Ontario to the coalfields of Pennsylvania, U.S.A., the water power and other varied resources of the two provinces, and their nearness to the larger markets of Canada and the United States have all contributed to the above result.

Table **1** shows the outstanding predominance of Ontario and Quebec in each industrial group. Quebec leads in the manufacture of textiles and chemicals, but in each of the other groups Ontario has the greater production. The standing of these two provinces is most nearly approached by British Columbia in the case of the wood and paper products group, where the latter province accounts for 16·5 p.c. of the gross production compared with 35·7 p.c. for Ontario and 34·5 p.c. for Quebec; in each of the other groups the positions of Ontario and Quebec lead by a wide margin.



1.—Summary Statistics of Manufactures of Each Province, Classified by Industrial Groups, 1944

Province and Group	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	$	$	$	$
Canada						
Vegetable products	5,941	130,679	183,943,948	763,606,750	485,551,491	1,270,518,297
Animal products	4,388	94,195	129,215,389	835,586,247	246,064,720	1,092,015,647
Textiles and textile products	2,481	153,122	195,805,681	419,988,642	351,186,488	781,771,688
Wood and paper products	10,452	189,674	284,436,559	497,656,158	550,826,986	1,093,725,822
Iron and its products	2,192	411,944	818,452,454	1,104,083,922	1,390,703,087	2,540,992,974
Non-ferrous metal products	635	104,314	182,909,292	549,317,062	399,498,519	992,345,975
Non-metallic mineral products	748	31,590	56,130,338	234,714,319	152,525,053	416,268,879
Chemicals and chemical products	981	81,822	137,422,977	360,412,749	355,260,598	733,569,232
Miscellaneous industries	665	25,542	41,304,732	66,967,507	84,159,068	152,484,005
Totals	**28,483**	**1,222,882**	**2,029,621,370**	**4,832,333,356**	**4,015,776,010**	**9,073,692,519**
Prince Edward Island						
Vegetable products	41	311	274,643	914,430	598,921	1,563,245
Animal Products	102	715	489,969	4,494,471	1,317,544	5,870,046
Wood and paper products	87	358	269,127	307,164	464,307	787,296
Iron and its products	7	324	571,397	505,842	707,393	1,233,249
All other groups [1]	4	78	89,627	771,603	482,670	1,259,808
Totals	**241**	**1,786**	**1,694,763**	**6,993,510**	**3,570,835**	**10,713,644**

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[1] Includes textiles, non-metallic mineral and chemical products.

1.—Summary Statistics of Manufactures of Each Province, Classified by Industrial Groups, 1944—continued

Province and Group	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	$	$	$	$
Nova Scotia						
Vegetable products	172	3,361	3,913,268	11,083,465	9,085,197	20,728,350
Animal products	219	3,688	3,979,819	19,158,760	8,160,996	27,685,124
Textiles and textile products	25	2,422	2,687,130	5,274,926	5,663,789	11,133,460
Wood and paper products	746	6,110	6,654,671	12,926,854	12,266,000	26,368,549
Iron and its products	77	20,391	39,351,937	32,512,969	51,075,080	87,071,066
Non-metallic mineral products	22	1,395	2,686,106	19,920,559	5,619,951	27,226,677
Chemicals and chemical products	15	385	600,345	2,468,706	1,418,409	3,999,551
Miscellaneous industries	5	60	67,135	116,884	87,216	208,887
Totals	**1,281**	**37,812**	**59,940,411**	**103,463,123**	**93,376,638**	**204,421,664**
New Brunswick						
Vegetable products	148	3,166	3,947,495	26,260,039	9,979,109	36,918,876
Animal products	184	2,853	2,694,235	14,560,503	5,012,496	19,890,034
Textiles and textile products	19	1,833	1,941,765	3,505,761	3,349,066	7,022,222
Wood and paper products	514	9,205	12,540,255	30,872,586	26,166,289	61,127,507
Iron and its products	39	4,743	9,207,032	4,504,534	14,218,964	19,073,167
Non-metallic mineral products	20	230	333,826	590,411	912,108	1,657,506
Chemicals and chemical products	7	286	420,975	2,785,490	1,054,709	3,872,447
Miscellaneous industries[1]	6	848	1,259,497	914,275	1,565,737	2,544,818
Totals	**937**	**23,164**	**32,345,080**	**83,993,599**	**62,258,478**	**152,106,577**
Quebec						
Vegetable products	1,858	39,151	52,593,105	184,136,986	132,429,534	321,657,994
Animal products	1,757	30,318	37,194,525	179,992,694	63,904,516	246,217,640
Textiles and textile products	1,319	83,777	105,125,498	229,847,322	195,155,721	430,934,363
Wood and paper products	3,402	61,239	88,651,354	171,537,347	183,267,705	377,488,895
Iron and its products	453	114,673	226,419,694	274,554,737	363,187,996	648,480,258
Non-ferrous metal products	157	35,535	62,248,375	226,970,120	155,205,908	404,055,401
Non-metallic mineral products	176	7,730	13,413,869	62,562,018	35,313,827	106,627,256
Chemicals and chemical products	325	46,443	75,469,476	153,999,527	209,155,252	370,363,933
Miscellaneous industries	209	5,249	7,040,157	10,652,302	12,898,675	23,859,443
Totals	**9,656**	**424,115**	**668,156,053**	**1,494,253,053**	**1,350,519,134**	**2,929,685,183**
Ontario						
Vegetable products	2,509	65,121	95,979,079	386,677,531	253,517,977	651,705,186
Animal products	1,514	31,890	47,815,449	280,547,589	85,450,644	370,389,478
Textiles and textile products	933	58,242	78,170,055	156,182,276	133,317,170	293,593,419
Wood and paper products	2,971	70,548	109,253,058	173,471,996	204,618,757	390,418,343
Iron and its products	1,189	212,310	422,897,114	701,823,124	759,663,915	1,489,172,929
Non-ferrous metal products	402	63,302	110,444,525	281,010,267	228,161,322	526,157,444
Non-metallic mineral products	366	17,053	30,857,282	98,498,229	86,872,343	199,293,850
Chemicals and chemical products	510	28,597	49,928,255	182,170,295	114,452,605	304,317,467
Miscellaneous industries	337	17,329	29,693,243	49,966,551	63,989,180	114,749,668
Totals	**10,731**	**564,392**	**975,038,060**	**2,310,347,858**	**1,930,043,913**	**4,339,797,784**

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[1] Includes non-ferrous metal products.

1.—Summary Statistics of Manufactures of Each Province, Classified by Industrial Groups, 1944—concluded

Province and Group	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	$	$	$	$
Manitoba						
Vegetable products	261	5,248	7,187,418	41,463,778	20,850,236	63,378,340
Animal products	198	7,936	12,016,571	117,819,948	28,222,136	146,813,111
Textiles and textile products	90	4,283	4,715,968	16,572,356	7,873,192	24,554,563
Wood and paper products	517	5,795	8,067,781	10,562,000	16,342,024	27,663,243
Iron and its products	89	12,286	22,268,527	17,537,270	32,041,393	50,769,829
Non-ferrous metal products	24	540	936,443	7,151,920	2,152,334	9,518,577
Non-metallic mineral products	37	984	1,468,767	4,703,135	3,838,989	9,529,409
Chemicals and chemical products	38	3,141	5,054,060	8,428,078	7,032,860	16,057,864
Miscellaneous industries	36	724	1,042,546	1,996,440	1,986,762	4,049,658
Totals	**1,290**	**40,937**	**62,758,081**	**226,234,925**	**129,339,926**	**352,334,594**
Saskatchewan						
Vegetable products	184	2,293	3,240,738	31,316,355	9,168,352	41,120,272
Animal products	97	3,818	5,564,898	58,588,091	13,404,220	72,520,869
Textiles and textile products	5	49	55,264	1,054,340	160,801	1,216,999
Wood and paper products	689	3,329	3,338,128	4,317,024	6,474,884	11,046,349
Iron and its products	36	1,506	2,850,787	5,610,084	5,214,535	10,972,572
Non-metallic mineral products	27	784	1,511,650	15,693,986	4,194,076	20,910,769
Chemicals and chemical products	9	118	160,927	312,073	290,354	613,380
Miscellaneous industries[1]	7	464	980,711	14,323,064	1,926,111	16,948,024
Totals	**1,054**	**12,361**	**17,703,103**	**131,215,017**	**40,833,333**	**175,349,234**
Alberta						
Vegetable products	288	4,000	5,576,191	34,977,643	20,687,475	56,278,917
Animal products	149	6,307	9,308,449	104,371,431	20,499,061	125,506,481
Textiles and textile products	27	871	1,068,086	2,017,560	1,828,918	3,864,726
Wood and paper products	562	4,331	5,258,039	8,681,466	9,535,811	18,502,895
Iron and its products	63	4,001	7,708,715	5,377,379	10,340,747	16,038,988
Non-ferrous metal products	5	77	136,422	350,624	237,602	596,938
Non-metallic mineral products	42	1,890	2,939,297	14,916,622	10,163,179	26,089,057
Chemicals and chemical products	16	508	940,470	988,671	3,657,309	5,190,555
Miscellaneous industries	13	201	292,060	401,141	465,651	881,337
Totals	**1,165**	**22,186**	**33,227,729**	**172,082,537**	**77,415,753**	**252,949,894**
British Columbia						
Vegetable products	479	8,026	11,230,956	46,773,228	29,232,442	77,160,941
Animal products	168	6,670	10,151,474	56,052,760	20,093,107	77,122,864
Textiles and textile products	61	1,602	2,003,779	5,035,705	3,657,085	8,769,609
Wood and paper products	957	28,742	50,390,218	84,961,610	91,655,128	180,264,855
Iron and its products	238	41,678	87,117,082	61,641,287	154,192,895	218,091,597
Non-ferrous metal products	43	3,986	7,505,395	19,276,828	11,085,684	34,066,668
Non-metallic mineral products	56	1,500	2,863,049	17,668,577	5,400,785	24,560,922
Chemicals and chemical products	60	2,318	4,812,650	8,997,975	17,928,539	28,620,166
Miscellaneous industries	54	1,540	2,564,515	3,152,046	3,891,532	7,187,067
Totals	**2,116**	**96,062**	**178,639,118**	**303,560,016**	**337,137,197**	**655,884,689**
Yukon and N.W.T.						
Wood and paper products	7	17	13,928	18,111	36,081	57,890
All other groups	4	50	105,044	171,607	244,722	431,366
Totals	**11**	**67**	**118,972**	**189,718**	**280,803**	**489,256**

[1] Includes non-ferrous metal products.

The degree of concentration of manufacturing production in large units is illustrated in Table 2. In the Province of Quebec, 51·3 p.c. of all persons engaged in manufacturing were employed in establishments having 500 or more employees, as compared with 46·9 p.c. for Canada as a whole. Ordinarily, Ontario ranks second in concentration of manufacturing production. In 1942, however, British

Columbia with 47·2 p.c. came second; this was due to the large shipbuilding plants located there. In 1944, Ontario resumed her normal position in second place with 47·3 p.c., while Nova Scotia came third with 45·8 p.c., followed by British Columbia with 45·2 p.c., Manitoba 35·7 p.c., New Brunswick 26·9 p.c., Alberta 24·3 p.c. and Saskatchewan 15·6 p.c.

2.—Concentration of Manufacturing Production in Each Province, 1944

Province	Number of Establishments Employing 500 or More Persons	Percentage of Total Number of Establishments in Province	Provincial Percentage of Number of Employees Accounted for by these Establishments
Prince Edward Island	Nil	–	–
Nova Scotia	14	1·1	45·8
New Brunswick	7	0·7	26·9
Quebec	132	1·4	51·3
Ontario	191	1·8	47·3
Manitoba	9	0·7	35·7
Saskatchewan	3	0·3	15·6
Alberta	6	0·5	24·3
British Columbia	21	1·0	45·2
Totals	**383**	**1·3**	**46·9**

Section 1.—The Manufactures of the Maritime Provinces, 1944

In Prince Edward Island the predominant agricultural and fishery resources make butter and cheese, fish curing and packing, and slaughtering and meat packing the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries, as well as its extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of primary iron and steel, shipbuilding and repairs, fish curing and packing, sawmills, pulp and paper, and butter and cheese. In addition to this, important petroleum refineries and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a leading place to its pulp and paper and sawmilling industries, although fish and agricultural products add to the varied output. Sugar refining and the production of railway rolling-stock also form important branches of manufacturing production.

3.—Statistics of the Leading Industries of the Maritime Provinces, 1944

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		PRINCE EDWARD ISLAND					
		No.	No.	$	$	$	$
1	Fish curing and packing	70	506	284,716	1,945,435	744,923	2,717,806
2	Butter and cheese	29	136	137,088	1,553,353	436,252	2,019,998
3	Castings, iron	3	259	489,735	245,100	583,243	841,813
4	Fruit and vegetable preparations	8	149	118,949	438,831	247,483	710,034
5	Sawmills	70	158	53,521	166,494	159,943	330,234
6	Bread and other bakery products	13	82	67,444	172,146	134,702	317,884
7	Printing and publishing	4	113	122,519	38,684	178,270	224,929
8	Starch and glucose	3	18	20,701	108,829	56,123	173,553
9	Aerated and mineral waters	4	22	25,083	46,156	109,388	158,049
10	All other leading industries[1]	6	181	199,915	2,041,374	653,849	2,700,923
	Totals, Leading Industries	**210**	**1,624**	**1,519,671**	**6,756,402**	**3,304,176**	**10,195,223**
	Totals, All Industries	**241**	**1,786**	**1,694,763**	**6,993,510**	**3,570,835**	**10,713,644**

For footnote, see end of table, p. 569.

3.—Statistics of the Leading Industries of the Maritime Provinces, 1944—concluded

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		NOVA SCOTIA					
		No.	No.	$	$	$	$
1	Shipbuilding and repairs	31	8,912	18,110,897	12,125,147	26,387,292	39,044,263
2	Primary iron and steel	6	5,752	10,160,736	13,066,103	9,287,447	24,733,729
3	Fish curing and packing	168	2,907	2,985,287	13,826,800	6,069,787	20,123,214
4	Sawmills	548	2,699	1,855,408	5,547,158	4,047,202	9,658,323
5	Railway rolling-stock	3	878	1,612,751	4,429,355	2,127,581	6,777,453
6	Fruit and vegetable preparations	24	1,096	1,110,819	4,008,933	1,907,508	6,189,739
7	Butter and cheese	28	535	699,987	4,208,326	1,559,589	5,872,357
8	Pulp and paper	5	698	1,465,276	2,376,038	2,154,995	5,497,034
9	Planing mills, sash, doors, etc.	36	797	1,041,611	2,829,923	1,712,157	4,582,148
10	Bread and other bakery products	93	779	926,755	2,269,041	1,880,064	4,287,962
11	Biscuits, confectionery, cocoa, etc.	8	801	932,149	2,055,089	2,001,850	4,113,811
12	Hosiery and knitted goods	4	829	839,812	1,148,968	1,718,718	2,927,096
13	Printing and publishing	32	827	1,086,296	451,103	2,289,665	2,781,933
14	Aerated waters	31	330	448,826	860,514	1,747,914	2,652,621
15	Clothing, men's, factory	6	457	533,404	1,156,784	1,043,992	2,211,337
16	All other leading industries[1]	8	4,825	9,287,125	21,982,189	14,924,319	38,669,813
	Totals, Leading Industries	**1,031**	**33,122**	**53,097,139**	**92,341,471**	**80,860,080**	**180,122,833**
	Totals, All Industries	**1,281**	**37,812**	**59,940,411**	**103,463,123**	**93,376,638**	**204,421,664**
		NEW BRUNSWICK					
		No.	No.	$	$	$	$
1	Pulp and paper	6	3,185	6,111,151	16,313,679	14,369,797	34,459,836
2	Sawmills	388	3,221	2,884,582	8,167,684	5,548,113	13,826,290
3	Shipbuilding and repairs	4	1,851	4,137,598	1,736,379	7,744,250	9,614,520
4	Fish curing and packing	127	1,714	1,292,690	6,170,108	2,593,850	8,948,124
5	Foods, miscellaneous	10	391	522,911	6,489,389	1,536,795	8,037,400
6	Slaughtering and meat packing	3	386	512,501	4,101,268	577,957	4,714,853
7	Butter and cheese	35	369	452,066	3,344,544	1,067,702	4,492,972
8	Bread and other bakery products	76	695	813,429	1,764,119	1,578,023	3,446,119
9	Fertilizers	3	199	317,933	2,305,203	732,710	3,048,747
10	Planing mills, sash, doors, etc.	29	695	871,460	1,629,335	1,235,184	2,903,506
11	Foods, stock and poultry	7	124	177,342	2,305,356	309,272	2,638,367
12	Biscuits, confectionery, cocoa	6	593	642,866	1,289,306	1,238,573	2,573,591
13	Heating and cooking apparatus	3	610	910,777	562,326	1,756,947	2,360,779
14	All other leading industries[1]	6	3,589	5,680,092	16,402,905	9,835,146	26,854,936
	Totals, Leading Industries	**703**	**17,622**	**25,327,398**	**72,581,601**	**50,124,319**	**127,920,040**
	Totals, All Industries	**937**	**23,164**	**32,345,080**	**83,993,599**	**62,258,478**	**152,106,577**

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[1] Individual statistics cannot be given because there are fewer than three establishments in each industry. Such industries are: in Prince Edward Island—slaughtering and meat packing, planing mills, sheet metal products, fertilizers, cotton and jute bags; in Nova Scotia—cotton yarn and cloth, aircraft, miscellaneous iron and steel products, wire, coke and gas, and petroleum; in New Brunswick—sugar refineries, railway rolling-stock, cotton yarn and cloth, silk and artificial silk goods and veneer and plywoods.

Section 2.—The Manufactures of Quebec, 1944

Among the assets of Quebec that have tended to develop manufacturing industries in the Province may be mentioned its natural resources of forests, water powers, minerals, and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going shipping to reach its main centres of population. Added to these natural advantages, there is a stable and industrious population, which is an important factor in industries such as textiles, clothing, boots and shoes, etc., where a large labour force is required.

The most notable change among the manufactures of Quebec in recent years has been the development of the non-ferrous metal smelting industry. This industry first appeared among the forty leading industries of the Province in nineteenth place in 1927. It has been in second place since 1935, with the exception of 1942 when it was in first place.

Quebec, with about 32 p.c. of the Dominion output in 1944, was the second largest manufacturing province. The production of pulp and paper normally constitutes the dominant industry, but in 1943 and 1944 was displaced from the premier position by the miscellaneous chemical-products industry and non-ferrous metal smelting and refining. In addition to accounting for about 6 p.c. of gross value of Quebec manufactures in 1944, the pulp and paper industry furnished about 50 p.c. of the Dominion total for this industry. The value of tobacco products totalled approximately 89 p.c., cotton yarn and cloth 75 p.c., women's factory clothing 67 p.c., leather boots and shoes 65 p.c., men's factory clothing 58 p.c., railway rolling-stock 53 p.c., and non-ferrous metal smelting and refining 51 p.c., of the Dominion totals of these products. Quebec is thus an outstanding manufacturing province by reason of her large individual industries and not so much on account of the great diversification of her industrial activity.

4.—Statistics of the Leading Industries of the Province of Quebec, 1944

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		No.	No.	$	$	$	$
1	Miscellaneous chemical products	73	35,816	57,524,597	107,707,646	161,604,775	272,682,164
2	Non-ferrous metal smelting and refining	7	11,904	21,805,764	141,225,344	81,515,889	242,854,585
3	Pulp and paper	46	18,910	36,894,543	78,495,020	87,796,517	186,918,517
4	Aircraft	14	32,631	64,760,462	54,079,387	105,692,620	160,736,338
5	Shipbuilding and repairs	13	22,162	45,292,822	45,617,910	62,582,627	109,558,276
6	Iron and steel products, miscellaneous	48	8,988	18,600,102	63,626,813	36,640,498	101,226,254
7	Electrical apparatus and supplies	38	16,332	27,805,400	52,150,626	46,667,943	99,449,654
8	Clothing, women's, factory	499	16,927	22,027,576	49,444,148	40,167,522	89,797,503
9	Railway rolling-stock	10	14,829	31,372,920	40,897,259	45,754,630	88,652,108
10	Cotton yarn and cloth	16	15,230	19,559,841	51,675,282	33,475,070	87,587,072
11	Slaughtering and meat packing	30	3,398	5,308,048	67,992,817	11,891,216	80,379,717
12	Clothing, men's, factory	240	14,272	17,960,382	46,688,861	33,246,986	80,170,220
13	Tobacco, cigars and cigarettes	45	9,224	11,474,673	33,151,772	29,887,852	63,277,589
14	Butter and cheese	1,035	4,077	4,886,839	44,857,870	8,195,350	54,008,052
15	Petroleum products	7	1,175	2,563,684	40,885,176	9,022,966	52,116,936
16	Sawmills	1,940	10,785	9,191,188	29,920,319	19,835,978	50,099,695
17	Boots and shoes, leather	138	12,331	14,379,593	28,333,717	20,937,746	49,510,241
18	Brass and copper products	40	4,585	8,604,564	21,782,483	19,090,106	41,835,878
19	Machinery	44	7,648	14,269,233	15,221,772	24,406,722	40,234,781
20	Silk and artificial silk	23	7,571	9,682,855	13,116,235	20,778,625	34,959,717
21	Primary iron and steel	17	6,137	11,950,859	10,422,778	19,755,616	32,959,912
22	Hosiery and knitted goods	70	8,995	10,065,366	14,985,874	17,328,753	32,761,805
23	Bread and other bakery products	1,076	7,399	8,977,921	15,528,951	15,327,448	32,033,466
24	Acids, alkalies and salts	11	2,759	5,300,341	12,878,467	12,714,018	28,539,640
25	Breweries	8	2,946	5,829,690	7,436,910	18,914,723	26,889,539
26	Hardware, tools and cutlery	49	5,338	9,955,053	5,865,344	20,141,267	26,417,028
27	Sheet metal products	38	4,447	6,777,812	13,559,206	12,540,641	26,385,610
28	Rubber goods, including rubber footwear	19	5,047	6,772,666	13,937,943	10,336,003	24,758,982
29	Medicinal and pharmaceutical preparations	83	3,217	5,094,157	10,895,931	13,051,900	24,152,917
30	Sugar refineries	3	654	1,223,828	19,239,405	4,268,065	24,046,650
31	Biscuits, confectionery, cocoa, etc.	59	3,645	4,092,554	12,475,844	9,573,673	22,371,808
32	Foods, miscellaneous	73	1,460	2,082,296	13,856,176	7,930,177	21,980,785
33	Flour and feed mills	201	1,077	1,605,138	17,216,291	3,468,105	20,903,886
34	Paints, pigments and varnishes	28	2,022	3,481,651	10,213,465	10,101,440	20,554,603
35	Foods, stock and poultry	46	683	1,089,578	17,399,084	2,479,073	19,997,354
36	Fur goods	215	2,427	3,668,662	13,563,234	6,255,410	19,873,547
37	Printing and publishing	72	4,611	7,829,786	4,418,758	14,974,222	19,593,818
38	Aerated and mineral waters	160	2,064	3,292,364	6,272,921	11,457,321	18,014,548
39	Castings, iron	48	3,623	6,705,777	7,968,572	9,513,790	17,922,605
40	Miscellaneous textiles	10	1,924	3,377,058	8,820,824	8,706,200	17,792,963
	Totals, Leading Industries	**6,592**	**339,270**	**553,137,643**	**1,263,826,435**	**1,128,029,483**	**2,464,006,763**
	Totals, All Industries	**9,656**	**424,115**	**668,156,053**	**1,494,253,053**	**1,350,519,134**	**2,929,685,183**
	Percentages of leading industries to all industries	68·3	79·9	82·8	84·5	83·6	84·0

Section 3.—The Manufactures of Ontario, 1944

The gross value of the manufactured products of Ontario in 1944, represented about 48 p.c. of the total for the whole Dominion. This premier position in manufacturing has been fairly uniformly maintained by Ontario, as the following percentages show: 1926, 52 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c.; and 1880, 51 p.c. In spite of the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia and Manitoba, Ontario is maintaining a manufacturing production roughly equal to that of the remainder of the Dominion.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forests, minerals, water powers, and agriculture; a large population and excellent water and rail transportation facilities to other parts of the country, have all encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment, within the Province, of branch factories of Unites States industries, as in automobile manufacturing.

Industries producing capital or durable goods, which constitute an important factor in the manufactures of Ontario, were particularly hard hit during the early years of the depression preceding the Second World War. Thus, production was disproportionately curtailed in such important industries as automobiles, electrical equipment, machinery, agricultural implements, primary iron and steel, etc. This resulted in a lowering of the manufacturing production of the whole Province relatively to that of other provinces less affected by these influences. With the recovery since 1933 and the expansion in production resulting from the Second World War, these industries in general have made good progress, and Ontario, which accounted for 49 p.c. of the gross value of all products manufactured in the Dominion in 1933, had by 1942 increased the relative value to 50·5 p.c. In 1944, the percentage dropped again to 47·8, indicating a relatively greater expansion of war production in other provinces.

Ontario has the greatest diversification of manufacturing production of any province. Outstanding among the industries in which this Province is pre-eminent are those of automobiles, agricultural implements and starch manufacture which are carried on practically in this Province alone. Other important industries in which Ontario leads, with the percentage which the production of each bore to that of the Dominion total in 1944, are as follows: leather tanneries 86, rubber goods 85, primary iron and steel 70, electrical apparatus and supplies 64, iron castings 62, fruit and vegetable preparations 59, flour and feed mills 58, furniture 57, and hosiery and knitted goods 55.

5.—Principal Statistics of the Leading Industries of the Province of Ontario, 1944

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		No.	No.	$	$	$	$
1	Automobiles	4	22,392	53,676,361	234,308,320	86,656,572	323,287,967
2	Aircraft	23	33,777	70,054,512	74,602,768	141,896,721	217,573,199
3	Electrical apparatus and supplies	167	31,860	53,569,965	66,777,695	111,644,028	180,226,910
4	Non-ferrous metal smelting and refining	7	8,424	15,662,420	135,905,849	31,024,235	179,256,596
5	Slaughtering and meat packing	71	7,219	12,264,823	136,554,556	21,065,865	158,666,667
6	Automobile supplies	66	19,509	37,398,970	81,940,630	71,477,975	155,533,947
7	Primary iron and steel	27	17,470	36,167,112	67,151,835	69,833,420	148,598,186
8	Miscellaneous chemical products	122	11,918	19,927,408	113,329,725	32,040,639	146,389,169

5.—Principal Statistics of the Leading Industries of the Province of Ontario, 1944 —concluded

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		No.	No.	$	$	$	$
9	Rubber goods, including rubber footwear	32	16,301	29,103,399	68,227,322	72,338,823	144,581,743
10	Iron and steel products, miscellaneous	92	23,650	46,899,684	53,425,043	73,757,871	128,893,354
11	Flour and feed mills	690	3,800	5,339,217	109,254,523	14,319,853	124,506,511
12	Pulp and paper	38	10,864	22,266,590	47,148,136	49,765,313	106,197,694
13	Brass and copper products	99	12,074	23,106,867	48,852,230	52,819,194	103,330,148
14	Machinery	170	16,300	30,780,095	29,323,836	60,827,957	91,114,482
15	Butter and cheese	848	7,969	11,322,338	61,997,930	18,484,050	82,097,944
16	Petroleum products	16	3,191	6,794,244	51,226,366	24,779,781	79,980,443
17	Scientific and professional equipment	26	9,026	18,140,788	32,423,015	41,597,389	74,360,467
18	Sheet metal products	108	10,008	16,528,965	35,568,852	31,544,869	67,966,692
19	Fruit and vegetable preparations	192	8,518	9,359,004	35,728,101	27,123,803	63,822,107
20	Agricultural implements	25	13,590	24,871,339	24,394,796	33,843,294	59,280,751
21	Bread and other bakery products	1,058	12,866	16,843,662	26,261,384	28,348,073	56,397,386
22	Hardware, tools and cutlery	172	10,504	18,981,433	13,671,063	35,175,419	49,787,718
23	Shipbuilding and repairs	23	9,504	19,538,446	12,204,260	34,183,621	46,818,200
24	Biscuits, confectionery, cocoa, etc.	85	7,462	9,636,679	22,231,123	23,344,202	46,124,362
25	Hosiery and knitted goods	114	12,390	13,871,910	21,663,410	23,689,466	46,020,702
26	Castings, iron	88	9,225	17,436,275	17,469,133	26,447,572	45,673,779
27	Railway rolling-stock	15	6,456	12,968,162	20,939,501	21,711,429	43,614,998
28	Clothing, men's, factory	118	9,324	13,687,427	23,203,775	20,093,354	43,438,625
29	Coke and gas products	18	2,921	5,422,515	24,836,855	14,493,773	42,386,597
30	Acids, alkalies and salts	20	4,339	8,739,618	15,182,933	20,764,773	40,924,926
31	Printing and publishing	293	8,059	14,815,155	9,075,689	30,241,792	39,717,930
32	Leather tanneries	27	3,686	6,435,719	24,011,530	14,145,573	38,858,739
33	Foods, miscellaneous	114	3,476	4,437,174	24,852,768	12,713,796	37,797,703
34	Clothing, women's, factory	276	6,967	10,432,308	18,212,333	16,847,111	35,153,786
35	Printing and bookbinding	556	8,303	12,236,018	13,015,824	19,790,000	33,106,800
36	Miscellaneous paper products	95	3,997	6,121,077	16,858,313	14,692,442	31,870,900
37	Boxes and bags, paper	86	5,826	7,676,367	17,581,466	13,896,599	31,739,718
38	Bridge and structural steel work	12	4,130	9,162,799	9,776,611	20,392,024	30,521,083
39	Sawmills	987	6,834	7,054,856	16,997,121	13,085,059	30,312,517
40	Breweries	22	2,175	4,656,522	5,798,992	23,711,885	29,897,554
	Totals, Leading Industries	**7,002**	**426,304**	**763,388,223**	**1,861,985,612**	**1,494,609,615**	**3,435,829,000**
	Totals, All Industries	**10,731**	**564,392**	**975,038,060**	**2,310,347,858**	**1,930,043,913**	**4,339,797,784**
	Percentage of leading industries to all industries	65·2	75·5	78·3	80·6	77·4	79·2

Section 4.—The Manufactures of the Prairie Provinces, 1944

The leading industries of the Prairie Provinces are those based on their agricultural resources—grain-growing, cattle-raising, and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor-vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development of the refining industry. Manitoba, as the early commercial centre of the prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water powers, forests and, more recently, minerals, have given rise to quite a diversification of industrial production.

Considering the Prairie Provinces as an economic unit, slaughtering and meat packing had the largest gross value of production in 1944, amounting to $273,197,731, followed by flour and feed mills with $69,775,479, butter and cheese $56,483,771, petroleum products $42,472,090, railway rolling-stock $24,394,795. These five industries accounted for about 60 p.c. of the total production of the Prairie Provinces. Other leading industries, in the order named, were: miscellaneous food products, bread and other bakery products, breweries and sawmills.

6.—Statistics of the Leading Industries of the Prairie Provinces, 1944

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		MANITOBA					
		No.	No.	$	$	$	$
1	Slaughtering and meat packing	12	4,903	7,944,250	98,648,494	20,777,110	119,852,480
2	Flour and feed mills	38	720	1,059,699	19,063,646	2,767,493	22,020,225
3	Railway rolling-stock	4	4,951	9,996,198	9,217,172	10,553,962	20,187,308
4	Butter and cheese	92	1,455	2,191,425	13,284,088	4,388,957	17,958,174
5	Miscellaneous chemical products	8	2,433	4,069,892	5,549,139	4,341,990	10,402,584
6	Aircraft	4	3,249	5,425,323	452,892	9,019,731	9,607,762
7	Clothing, men's, factory	31	1,848	1,921,019	4,665,377	2,887,578	7,587,060
8	Foods, miscellaneous	20	512	633,124	7,575,839	1,895,925	9,509,479
9	Bags, cotton and jute	5	280	364,043	6,384,922	996,730	7,396,866
10	Clothing, women's, factory	29	1,320	1,542,448	4,192,105	2,688,253	6,903,337
11	Biscuits, confectionery, etc	13	975	1,071,453	2,452,319	3,849,991	6,379,060
12	Bread and other bakery products	127	1,341	1,671,989	2,867,680	2,897,185	5,960,884
13	Breweries	6	503	938,370	1,149,608	4,032,229	5,295,098
14	Printing and publishing	75	998	1,618,661	798,927	3,684,631	4,544,991
15	All other leading industries[1]	5	848	1,810,026	8,329,838	5,298,268	14,286,217
	Totals, Leading Industries	**469**	**26,336**	**42,257,920**	**184,632,046**	**80,080,033**	**267,891,525**
	Totals, All Industries	**1,290**	**40,937**	**62,758,081**	**226,234,925**	**120,339,926**	**352,334,594**
		SASKATCHEWAN					
		No.	No.	$	$	$	$
1	Slaughtering and meat packing	8	2,239	3,545,850	42,257,684	8,797,180	51,312,961
2	Flour and feed mills	45	697	1,104,015	22,157,588	2,343,586	24,831,897
3	Butter and cheese	71	1,457	1,851,787	15,864,578	4,217,227	20,342,971
4	Petroleum products	7	649	1,259,106	15,387,991	3,472,402	19,824,611
5	Sawmills	506	1,848	1,252,670	2,434,429	2,994,874	5,571,572
6	Foods, miscellaneous	6	227	244,931	4,235,958	1,068,135	5,327,444
7	Bread and other bakery products	91	822	982,555	2,210,509	1,986,649	4,325,233
8	Breweries	5	246	451,037	617,597	2,717,288	3,421,397
9	Printing and publishing	112	793	1,256,599	532,737	2,175,531	2,764,542
10	Feeds, stock and poultry	8	96	162,318	1,533,757	261,971	1,819,434
11	Aerated and mineral waters	20	164	253,106	499,852	725,161	1,261,912
12	All other leading industries[1]	3	1,549	3,172,829	20,389,211	5,777,294	26,972,346
	Totals, Leading Industries	**882**	**10,787**	**15,536,803**	**128,121,891**	**36,537,298**	**167,776,320**
	Totals, All Industries	**1,054**	**12,361**	**17,703,103**	**131,215,017**	**40,833,333**	**175,349,234**
		ALBERTA					
		No.	No.	$	$	$	$
1	Slaughtering and meat packing	12	4,409	6,873,130	86,493,152	15,157,047	102,032,290
2	Flour and feed mills	81	921	1,338,614	18,920,704	3,790,978	22,923,357
3	Petroleum products	6	572	1,124,681	12,718,167	5,767,095	18,987,615
4	Butter and cheese	108	1,540	1,991,467	14,067,604	3,896,643	18,182,626
5	Bread and other bakery products	130	1,208	1,599,360	3,308,516	3,385,853	6,816,017
6	Breweries	5	373	705,304	1,129,389	5,344,618	6,531,842
7	Sawmills	345	1,877	1,515,177	2,542,089	2,889,786	5,564,400
8	Railway rolling-stock	3	1,174	2,220,183	1,881,882	2,180,548	4,207,487
9	Foods, miscellaneous	12	134	133,099	2,742,708	856,269	3,612,101
10	Printing and publishing	84	770	1,294,220	545,364	2,886,831	3,473,623
11	Clothing, men's, factory	7	578	747,678	1,561,455	1,352,469	2,922,107
12	Planing mills	33	546	771,408	1,615,735	1,069,043	2,720,586
13	Castings, iron	11	556	999,661	716,466	1,663,659	2,421,405
14	Feeds, stock and poultry	19	157	235,832	1,797,516	335,563	2,150,923
15	Fruit and vegetable preparations	6	302	273,354	1,015,028	646,241	1,683,657
16	Aerated and mineral waters	18	196	306,785	584,857	1,012,794	1,625,810
17	Printing and bookbinding	54	438	677,452	457,366	953,143	1,428,372
18	Boxes, wooden	5	302	420,152	759,986	641,886	1,417,039
19	Clay products from domestic clay	10	516	552,688	29,240	1,085,437	1,143,577
20	All other leading industries[1]	16	3,141	5,969,966	12,996,588	15,695,733	29,846,070
	Totals, Leading Industries	**965**	**19,710**	**29,750,211**	**165,883,812**	**70,611,636**	**239,690,904**
	Totals, All Industries	**1,165**	**22,186**	**33,227,729**	**172,082,537**	**77,415,753**	**252,949,894**

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[1] Other leading industries, individual statistics for which cannot be given because there are fewer than three establishments in each industry are: Manitoba—bridge and structural steel, non-ferrous metal smelting and refining, and pulp and paper: Saskatchewan—non-ferrous metal smelting and refining, miscellaneous iron and steel products, aircraft, and bags, cotton and jute: Alberta—cement, glass products, miscellaneous iron and steel products, primary iron and steel, wood preservation, malt and malt products, sugar refineries, acids, alkalies and salts, and cheese, processed.

Section 5.—The Manufactures of British Columbia, 1944

British Columbia in 1944 was again the third most important manufacturing province of the Dominion. Normally its rich forests give the wood industries a pre-eminence in the Province. Due to the exigencies of the War which resulted in the establishment of a huge shipbuilding industry on the Pacific Coast, the iron and its products group displaced wood and paper as the dominant factor in British Columbia manufacturing production. As a result of this, the shipbuilding industry, with a gross value of production of $124,175,065 and accounting for 19 p.c. of the total output of the Province in 1944, was the dominant industry. This industry which rose from sixth place in 1940 when the output was valued at only $9,943,941, reached its maximum expansion in 1943 when the output was valued at $155,536,396 and the persons employed totalled 31,238. Operations declined during 1944, the gross value of production dropping by $31,361,331 and the number of persons employed by 6,623. Emphasizing the importance of the forests in the industrial life of the Province, the sawmilling industry ranked second with a gross value of production of $98,381,844, and the pulp and paper industry fourth with $32,726,647. Third in importance was fish curing and packing, based principally on the estuarial salmon fisheries. British Columbia accounted for 48 p.c. of the total production of this industry in Canada. Other important industries were: slaughtering and meat packing, petroleum products, fruit and vegetable preparations, machinery, butter and cheese, etc. The varied resources of the Province and its position on the Pacific Coast have resulted in a wide diversification of its manufactures.

7.—Statistics of the Leading Industries of the Province of British Columbia, 1944

	Industry	Establishments	Employees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		No.	No.	$	$	$	$
1	Shipbuilding and repairs	22	24,615	51,827,314	29,356,048	93,674,331	124,175,065
2	Sawmills	498	15,274	27,110,882	51,324,211	46,251,574	98,381,844
3	Fish curing and packing	72	3,568	5,142,961	21,401,993	11,228,791	33,058,628
4	Pulp and paper	7	3,901	8,411,434	12,338,145	18,131,055	32,726,647
5	Slaughtering and meat packing	11	1,205	2,134,801	21,132,581	3,291,104	24,587,190
6	Petroleum products	6	416	896,217	15,387,576	1,407,381	17,278,020
7	Fruit and vegetable preparations	62	2,140	2,570,392	10,646,717	5,425,836	16,280,853
8	Machinery	26	2,270	4,570,759	5,408,161	8,462,539	13,986,622
9	Butter and cheese	36	1,084	1,825,473	9,311,954	3,590,965	13,168,262
10	Fertilizers	5	1,096	2,572,595	4,250,970	7,679,536	12,995,510
11	Bread and other bakery products	252	2,336	3,279,966	5,438,975	5,934,594	11,669,971
12	Veneer and plywood	8	1,788	2,866,215	4,352,336	6,767,600	11,247,593
13	Sheet metal products	18	1,240	2,185,079	6,198,301	4,601,584	10,880,794
14	Foods, miscellaneous	29	526	619,147	7,747,674	1,760,150	9,546,137
15	Breweries	11	504	1,045,175	1,231,817	6,268,321	7,610,409
16	Foods, stock and poultry	28	430	646,797	6,377,247	990,089	7,430,499
17	Iron and steel products, n.e.s.	19	1,197	2,762,501	1,545,684	5,734,900	7,390,740
18	Printing and publishing	71	1,691	2,979,642	1,353,023	5,892,821	7,312,134
19	Acids, alkalies and salts	4	444	877,883	699,444	6,062,183	7,284,745
20	All other leading industries[1]	8	12,873	26,500,111	37,227,316	42,489,831	84,090,486
	Totals, Leading Industries	**1,193**	**78,598**	**150,825,344**	**252,730,173**	**285,645,185**	**551,102,149**
	Totals, All Industries	**2,116**	**96,062**	**178,639,118**	**303,560,016**	**337,137,197**	**655,844,689**
	Percentage of leading industries to all industries	56·4	81·8	84·4	83·3	84·7	84·0

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[1] Includes other leading industries, statistics of which cannot be published because there are fewer than three establishments in each industry. Such industries are: distilleries, sugar refineries, bridge and structural steel and non-ferrous metal smelting and refining.

Section 6.—Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west, the cities are more largely distributing centres though manufactures are rapidly increasing there also.

Table 8, indicating the extent to which the manufacturing industries of Canada are concentrated in urban centres, shows by provinces the proportion of the gross manufacturing production contributed by cities and towns having a gross production of over $1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns in 1944 accounted for 89·5 p.c. and 91·1 p.c., respectively, of the totals for those provinces, while in the Maritime Provinces and British Columbia, where sawmilling, fish-packing, and dairying are leading industries, the proportions fell to 70·9 p.c. and 77·5 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

8.—Urban Centres with Gross Manufacturing Productions of Over $1,000,000, Number of Establishments and Total Production in such Centres as a Percentage of the Grand Total, by Provinces, 1944.

NOTE.—Statistics published in this table are in some cases higher than the figures published in Table **10**, since, in the table below are included statistics of towns with less than three establishments and production of over $1,000,000 each. It was not possible to publish this information in Table **10** without disclosing the operations of individual establishments.

Province or Territory	Urban Centres with a Gross Production of over $1,000,000 each	Establishments Reporting in Urban Centres Producing over $1,000,000 each	Total Production in Urban Centres Producing over $1,000,000 each	Total Production in each Province	Production in Urban Centres as a Percentage of Total Production in each Province
	No.	No.	$	$	p.c.
Prince Edward Island	2	55	5,936,696	10,713,644	55·4
Nova Scotia	20	388	148,576,172	204,421,664	72·7
New Brunswick	14	304	105,936,356	152,106,577	69·6
Quebec	102	5,108	2,669,217,408	2,929,685,183	91·1
Ontario	143	7,543	3,882,139,989	4,339,797,784	89·5
Manitoba	7	799	317,876,742	352,334,594	90·2
Saskatchewan	7	296	139,705,783	175,349,234	79·7
Alberta	7	470	215,868,247	252,949,894	85·3
British Columbia	16	1,440	508,193,768	655,844,689	77·5
Yukon and Northwest Territories	Nil	-	-	489,256	-
Canada	**318**	**16,403**	**7,993,451,161**	**9,073,692,519**	**88·1**

9.—Principal Statistics of the Manufacturing Industries of the Six Leading Manufacturing Cities of Canada, 1933-44

Note.—The dyeing, cleaning and laundry industry is included for the years prior to 1936.

City and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products[1]
	No.	$	No.	$	$	$
Montreal..............1933	2,226	363,342,078	80,212	74,150,933	148,504,215	300,636,197
1935	2,346	382,332,791	94,612	89,934,540	201,022,033	383,547,972
1937	2,474	415,816,451	105,931	112,652,112	281,407,645	511,481,054
1938	2,469	409,578,419	103,254	111,431,966	253,277,569	474,534,092
1939	2,501	423,234,648	105,315	114,602,118	254,188,246	483,246,583
1940	2,519	475,575,804	118,774	138,118,813	334,350,566	604,806,394
1941	2,669	556,538,023	147,917	187,239,445	444,557,884	803,685,931
1942	3,007	629,809,985	169,987	240,888,491	541,625,660	976,767,738
1943	2,992	721,223,427	194,643	307,922,631	665,209,935	1,184,114,458
1944	3,109	[2]	185,708	308,396,358	650,618,563	1,215,988,014
Toronto..............1933	2,604	388,995,096	75,645	80,855,883	146,286,472	308,983,639
1935	2,689	386,898,652	86,226	97,144,947	190,370,255	385,883,455
1937	2,797	423,350,508	96,247	115,520,050	247,422,098	475,470,149
1938	2,863	424,209,626	94,930	115,832,230	229,641,098	455,527,321
1939	2,885	447,009,768	98,702	122,553,435	240,532,281	482,532,331
1940	2,911	500,559,305	112,136	145,538,148	306,675,426	595,913,172
1941	3,045	554,317,600	133,099	184,267,132	391,328,916	756,923,939
1942	3,211	635,981,329	151,639	228,875,152	451,198,158	886,256,494
1943	3,238	647,907,281	156,459	259,307,913	481,504,056	961,923,997
1944	3,344	[2]	154,538	260,776,613	513,429,109	1,020,345,353
Hamilton..............1933	469	171,625,714	21,524	21,523,337	35,672,272	83,530,255
1935	484	176,246,963	26,769	30,162,244	53,740,074	114,691,789
1937	479	182,730,036	32,616	40,255,040	83,978,873	170,651,205
1938	471	186,397,262	31,313	38,297,830	71,849,817	150,394,481
1939	461	206,584,330	31,512	39,563,423	70,829,034	152,746,340
1940	474	230,821,923	39,081	54,139,253	106,595,186	212,587,274
1941	491	255,862,917	45,421	72,845,604	136,403,197	283,670,019
1942	482	273,212,977	50,744	85,111,817	166,078,144	347,752,196
1943	485	315,896,136	54,671	95,576,332	164,271,139	362,743,019
1944	480	[2]	53,500	94,982,915	171,117,467	363,033,672
Windsor..............1933	247	66,398,372	10,212	10,719,819	25,752,258	49,359,245
1935	236	64,298,564	15,227	20,714,545	64,062,711	104,908,197
1937	228	77,750,511	18,650	26,919,449	78,667,058	136,896,194
1938	224	79,940,995	17,732	26,088,439	67,680,572	125,833,355
1939	222	80,436,233	17,729	25,938,890	63,907,106	122,474,320
1940	215	102,896,682	20,916	37,260,970	112,991,063	194,174,159
1941	223	138,929,934	29,486	57,653,986	175,847,231	289,027,790
1942	233	206,556,146	37,057	76,276,589	240,384,518	383,323,348
1943	229	206,850,571	38,516	85,965,874	247,504,385	417,745,229
1944	231	[2]	35,912	80,667,573	232,102,240	387,603,874
Vancouver..............1933	746	74,209,271	12,094	11,754,124	28,588,106	55,160,883
1935	811	83,594,899	15,683	16,789,590	39,863,397	73,981,872
1937	824	85,851,189	17,641	20,783,032	53,139,109	95,717,017
1938	842	91,714,005	17,968	21,700,941	52,178,629	91,607,637
1939	829	92,797,032	17,957	22,382,192	56,565,511	101,267,243
1940	849	101,429,495	20,767	26,502,084	70,468,864	120,981,388
1941	864	115,960,608	25,223	34,132,996	90,720,812	162,982,858
1942	897	136,336,017	37,858	60,779,827	116,153,100	223,295,187
1943	898	193,795,910	45,971	81,059,815	130,442,455	288,196,900
1944	933	[2]	43,473	79,141,407	142,416,371	289,390,718
Winnipeg..............1933	600	73,886,398	15,336	15,155,537	28,355,612	59,287,280
1935	616	71,837,683	16,649	17,568,803	36,825,174	67,217,042
1937	622	72,419,041	17,284	19,687,511	45,498,865	80,108,696
1938	634	68,339,544	17,153	19,811,744	43,319,595	78,029,078
1939	648	73,255,368	17,571	20,717,273	44,873,043	81,024,272
1940	657	79,684,791	19,026	22,673,057	56,496,847	98,266,933
1941	677	105,406,381	23,831	30,169,726	73,427,543	127,913,351
1942	692	113,297,399	27,768	38,191,886	88,897,218	156,332,353
1943	688	100,511,565	24,898	35,807,283	106,485,838	174,523,234
1944	686	[2]	25,870	38,824,299	119,917,745	198,169,626

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[1] Net value is derived from gross value by deducting cost of materials, fuel and electricity. For cost of fuel and electricity in 1944, see Table **10**. [2] Not collected.

10.—Statistics of Manufactures of Municipalities, each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1944

NOTE.—Statistics for cities and towns with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total production.

Province and Municipality	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products[1]
	No.	No.	$	$	$	$
P. E. Island—						
Charlottetown	35	669	910,095	47,463	2,339,246	4,076,487
Summerside	20	296	303,095	41,006	1,167,523	1,860,209
Nova Scotia—						
Amherst	22	3,071	5,469,326	225,750	2,001,307	8,529,543
Berwick	8	268	263,972	58,438	879,093	1,392,285
Bridgetown	9	258	297,594	45,229	1,010,469	1,706,509
Dartmouth	15	257	365,782	33,980	821,198	1,715,610
Digby	11	163	159,865	17,670	697,448	1,169,057
Halifax	113	7,138	12,147,517	611,878	15,364,695	37,324,862
Kentville	10	237	270,884	59,039	925,365	1,554,096
Lockport	3	243	315,259	28,605	1,008,918	1,615,503
Lunenburg	15	686	1,167,945	66,789	2,106,220	3,959,231
Middleton	7	252	254,832	51,180	773,117	1,239,150
New Glasgow	26	869	1,435,885	125,919	1,930,019	4,128,286
North Sydney	12	329	445,583	24,946	1,545,699	2,456,851
Pictou	9	2,955	6,402,352	187,565	7,209,424	14,665,110
Sydney	42	6,277	11,043,211	2,995,758	17,763,105	34,199,379
Trenton	4	2,110	4,190,965	495,072	6,269,943	12,896,349
Truro	27	1,206	1,317,729	107,258	2,413,417	5,502,547
Windsor	10	348	349,195	29,199	1,347,828	2,013,376
Yarmouth	29	1,002	1,136,879	113,251	2,765,408	5,208,251
New Brunswick—						
Campbellton	17	474	640,233	41,164	675,741	1,527,472
Fredericton	26	611	735,577	59,051	1,824,091	3,117,613
Moncton	51	3,104	4,799,216	213,634	7,791,484	14,043,130
Newcastle	13	336	337,224	25,497	1,341,702	1,884,747
Sackville	11	624	884,554	40,725	629,297	2,452,093
St. Andrews	4	116	174,891	6,617	1,327,332	1,832,923
Saint John	121	4,657	6,816,824	769,909	28,519,337	43,586,062
St. Stephen	14	541	634,654	60,149	1,674,417	2,937,520
Sussex	13	240	315,576	12,769	949,414	1,633,791
Quebec—						
Acton Vale	13	638	749,490	47,392	1,450,817	2,554,477
Asbestos	14	460	642,531	141,730	1,804,492	3,057,082
Beauharnois	12	1,843	3,533,543	2,517,819	8,893,360	18,748,855
Bedford	9	599	678,645	29,817	194,273	2,153,922
Berthier	14	713	772,757	149,867	1,777,441	4,012,999
Brownsburg	7	1,479	2,681,246	92,569	2,419,067	6,121,918
Buckingham	12	1,003	1,549,671	774,677	5,349,571	11,055,435
Cabano	5	305	270,364	4,004	636,453	1,011,610
Cap-de-la-Madeleine	19	2,490	3,283,593	245,760	6,942,477	14,530,995
Chambly Canton	6	546	558,907	70,858	866,663	1,861,714
Chicoutimi	19	385	463,150	35,617	642,347	1,461,234
Coaticook	19	914	940,455	69,426	2,567,505	4,329,109
Danville	12	164	175,696	65,334	628,625	1,005,631
Drummondville	32	6,458	8,362,029	1,043,141	9,756,253	29,593,766
Farnham	18	797	953,201	110,813	2,455,738	4,570,137
Granby	46	4,332	5,332,346	298,603	14,545,212	26,582,446
Grand' Mère	18	1,949	2,567,753	982,126	6,148,827	14,064,211
Hull	48	3,497	5,082,174	894,729	14,931,565	24,326,472
Huntingdon	11	476	709,455	50,453	2,072,984	3,524,606
Joliette	47	1,708	2,019,051	241,228	3,312,137	7,034,096
Jonquière	14	393	644,804	110,760	1,458,193	2,962,501
Lachine	39	6,768	14,384,082	787,844	21,624,898	46,375,837
La Pérade (Ste. Anne)	11	254	242,701	49,883	1,680,852	2,214,044
Laprairie	15	509	720,914	290,733	544,675	2,214,515
La Salle	16	1,571	2,403,023	516,217	11,489,400	24,609,971
La Sarre	14	202	278,929	9,271	721,924	1,159,402
Lennoxville	9	297	438,551	110,428	650,676	1,505,209
Lévis	24	287	363,080	19,832	766,869	1,368,668
Longueuil	13	10,771	21,546,272	323,935	18,521,094	49,443,322
Loretteville	19	591	561,111	15,381	1,005,801	1,874,079
McMasterville	4	665	1,287,132	136,115	3,782,351	6,596,894

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[1] Net value is derived from gross value by deducting the cost of materials, fuel and electricity.

10.—Statistics of Manufactures of Municipalities, each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1944—continued

Province and Municipality	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products[1]
	No.	No.	$	$	$	$
Quebec—concluded						
Marieville	17	674	582,675	31,111	1,748,728	3,363,758
Matane	13	284	313,338	4,047	787,334	1,337,916
Mégantic (Lac)	12	528	535,609	5,418	546,626	1,184,992
Montmagny	29	1,165	1,361,013	75,485	2,562,185	4,924,246
Montmorency	4	1,691	2,168,591	159,317	4,606,888	9,423,561
Montreal	3,109	185,708	308,396,358	15,855,932	650,618,563	1,215,988,014
Montreal East	20	3,620	6,927,317	4,464,364	76,405,179	122,626,193
Napierville	9	154	148,429	20,472	677,543	1,010,134
Nicolet	13	434	384,042	13,774	922,922	1,966,094
Outremont	18	1,262	1,978,041	71,414	6,969,554	12,404,228
Plessisville	14	759	866,049	44,105	1,314,248	2,475,953
Pointe-aux-Trembles	9	396	540,743	28,462	1,610,918	2,535,138
Pont Rouge	11	303	319,071	151,531	1,516,216	3,044,396
Princeville	9	248	239,547	23,308	2,575,320	2,946,317
Quebec	318	25,424	36,782,730	3,013,783	45,709,952	115,143,670
Richmond	9	561	602,030	24,045	954,967	1,691,146
Rimouski	21	708	952,165	26,968	2,215,030	3,872,978
Rivière-du-Loup	19	361	568,764	75,216	388,207	1,146,696
Roberval	8	251	198,730	12,732	654,179	1,205,430
Rock Island	11	850	1,469,049	66,115	1,023,501	4,630,459
St. Césaire	26	353	306,050	20,293	727,575	1,165,902
St. George E	10	457	459,254	42,893	529,660	1,276,288
St. Hyacinthe	67	4,970	5,525,036	349,186	13,288,551	24,180,447
St. Jean	57	4,211	5,609,531	516,353	8,889,029	17,964,663
St. Jérôme (Terrebonne)	35	3,218	3,914,815	322,686	10,874,947	19,081,295
St. Lambert	12	594	758,861	50,946	1,380,023	3,231,720
St. Laurent	17	11,546	21,333,234	404,524	14,769,247	47,824,820
Ste. Marie	16	309	308,854	17,875	644,774	1,150,762
St. Rémi	12	258	239,537	25,099	987,171	1,563,027
St. Tite	20	313	298,068	10,082	888,231	1,368,157
Sayabec (Laindon)	7	183	206,509	1,993	1,389,976	1,749,733
Shawinigan Falls	41	6,091	10,925,393	8,420,121	32,570,376	68,486,500
Sherbrooke	88	8,142	11,249,811	785,434	17,416,624	40,005,892
Sorel	34	3,203	5,979,584	730,424	6,786,651	22,892,370
Terrebonne	14	491	713,415	23,498	1,220,723	2,928,974
Three Rivers	73	6,296	9,932,897	3,895,821	20,512,486	45,145,700
Thurso	9	227	268,590	5,786	777,354	1,313,220
Trois Pistoles	13	124	156,702	8,636	852,467	1,195,300
Valleyfield	36	3,658	4,621,238	457,265	6,800,443	15,121,182
Victoriaville	31	1,769	2,089,484	74,172	3,498,689	7,263,352
Warwick	13	347	453,425	49,374	1,269,344	2,147,881
Waterloo	16	1,303	1,626,633	95,925	2,717,665	9,301,720
Westmount	12	1,380	2,306,534	201,551	3,742,484	7,948,713
Windsor Mills	9	743	1,200,816	520,328	3,119,081	6,414,190
Ontario—						
Acton	17	921	1,428,684	147,893	5,943,328	9,335,210
Almonte	11	336	409,565	47,859	1,648,000	2,628,159
Amherstburg	10	617	1,157,629	1,051,389	2,878,276	8,276,443
Arnprior	15	436	597,388	63,191	1,673,216	2,736,988
Aurora	9	441	634,413	40,227	2,682,266	3,994,773
Aylmer (West)	14	249	289,604	59,205	2,636,335	3,365,434
Barrie	16	512	743,390	60,315	4,208,350	5,579,695
Belleville	44	2,761	4,145,746	446,494	4,479,324	12,588,188
Bloomfield	9	166	170,917	19,749	876,154	1,394,893
Bowmanville	12	816	1,290,311	130,924	3,077,162	6,285,128
Brampton	20	725	1,255,793	47,564	2,260,813	4,158,146
Brantford	122	12,980	21,752,506	1,127,694	24,060,027	65,969,044
Brighton	11	235	292,262	24,504	522,273	1,129,366
Brockville	35	1,490	2,183,033	221,523	9,354,010	14,149,791
Burlington	9	494	702,161	51,445	2,236,526	4,089,158
Caledonia	9	232	387,650	126,028	1,131,521	2,086,915
Campbellford	14	365	393,556	43,507	1,540,522	2,276,256
Carleton Place	10	860	1,132,452	82,942	2,128,801	4,173,076
Chatham	54	2,534	4,018,060	314,583	17,141,924	24,735,941
Chesley	11	287	369,409	22,903	703,166	1,223,977
Cobourg	22	601	913,144	107,814	2,093,861	4,118,305
Collingwood	15	1,671	3,037,352	92,691	3,070,816	7,461,248
Cornwall	46	5,636	8,137,770	1,912,003	12,881,176	30,648,599
Dryden	9	443	731,447	255,788	1,463,656	2,863,235

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[1] Net value is derived from gross value by deducting the cost of materials, fuel and electricity.

10.—Statistics of Manufactures of Municipalities, each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1944—continued

Province and Municipality	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products[1]
	No.	No.	$	$	$	$
Ontario—continued						
Dundas	25	1,649	2,837,820	89,920	2,538,681	7,872,466
Dunnville	20	761	984,180	69,652	2,319,010	4,111,927
Durham	12	260	308,737	35,064	515,647	1,014,500
Eastview	10	275	450,708	61,031	2,490,002	3,225,611
Elmira	19	468	728,017	71,903	1,806,243	3,698,812
Essex	10	297	368,069	34,409	840,660	1,658,357
Forest	12	235	247,219	31,273	703,021	1,198,868
Fort Erie	15	3,033	6,597,863	80,997	5,339,599	10,774,426
Fort William	44	8,085	16,823,847	1,438,113	20,277,619	59,457,911
Frankford	7	418	924,927	32,290	920,095	2,095,696
Galt	74	5,430	8,218,782	598,190	9,346,824	25,425,743
Gananoque	16	923	1,388,963	156,347	2,099,733	4,892,112
Georgetown	16	644	1,020,645	140,936	2,142,116	4,145,547
Goderich	14	531	746,230	193,927	4,761,064	6,695,022
Gravenhurst	8	363	459,041	15,456	662,805	1,560,961
Grimsby	15	506	582,994	35,308	980,792	1,941,044
Guelph	88	5,297	7,857,082	552,934	14,451,275	29,693,339
Hagersville	5	94	132,978	39,031	728,983	1,401,138
Hamilton	480	53,500	94,982,915	12,095,294	171,117,467	363,033,672
Hanover	16	941	1,231,839	44,265	2,307,241	4,065,800
Harrow	3	92	120,264	17,589	883,796	1,234,292
Hespeler	13	1,342	1,877,177	176,624	4,433,089	7,961,485
Humberstone	11	593	854,423	61,429	6,930,770	7,965,950
Ingersoll	20	1,459	2,532,459	160,327	5,342,512	9,877,518
Kincardine	12	599	675,124	39,982	887,330	2,340,619
Kingston	50	6,803	11,878,490	930,078	15,663,322	39,689,272
Kingsville	13	234	311,833	22,536	3,325,698	3,842,713
Kitchener	156	12,597	19,821,982	1,073,781	50,927,277	93,287,872
Leamington	11	1,007	1,255,132	166,776	7,518,708	14,829,999
Leaside	44	12,463	24,923,822	554,113	41,740,009	100,219,848
Lindsay	28	1,484	1,933,586	294,208	3,757,144	7,144,635
Listowel	17	452	576,454	77,167	2,441,460	3,879,574
London	237	13,098	20,132,303	1,126,508	34,706,542	79,591,112
Meaford	17	307	365,983	25,916	734,406	1,401,343
Merritton	14	2,218	4,371,404	679,912	8,890,850	18,198,217
Midland	16	1,095	1,895,431	75,976	3,320,103	9,078,219
Milton	11	403	614,080	165,705	879,880	2,662,448
Mimico	15	406	505,605	30,133	420,386	1,336,690
Napanee	14	339	425,097	48,764	688,823	1,558,227
New Hamburg	12	229	274,084	20,552	707,835	1,137,767
New Liskeard	15	633	837,081	27,672	987,132	2,251,420
Newmarket	14	854	1,212,531	81,930	2,441,273	5,354,866
New Toronto	23	7,226	14,144,544	1,268,357	45,178,591	85,309,618
Niagara Falls	65	6,666	12,132,328	4,306,626	20,315,905	51,987,912
North Bay	20	361	551,175	48,910	968,447	1,999,759
Oakville	20	612	994,492	68,072	3,189,430	6,029,233
Orangeville	14	206	201,641	17,227	722,033	1,054,167
Orillia	38	2,447	3,795,540	184,307	3,930,814	10,075,953
Ottawa	206	11,916	19,545,897	1,081,197	21,998,243	52,953,927
Owen Sound	44	2,565	3,746,996	224,853	4,894,349	11,638,747
Paris	21	1,149	1,486,103	100,425	3,018,161	5,860,692
Parkhill	5	658	933,223	76,338	933,606	2,508,388
Pembroke	36	1,150	1,401,887	67,343	2,395,412	4,947,425
Penetanguishene	13	448	586,487	23,630	840,354	1,726,576
Perth	18	908	1,315,524	61,497	2,354,386	5,987,031
Peterborough	85	8,926	14,955,397	809,303	41,811,920	74,667,995
Port Arthur	41	3,287	6,350,909	1,066,034	8,302,432	19,396,901
Port Colborne	21	2,743	5,126,738	2,546,501	78,010,943	107,557,709
Port Dalhousie	4	212	357,558	9,392	235,527	1,191,422
Port Hope	19	806	1,367,792	127,219	1,565,828	4,390,673
Prescott	14	417	525,905	14,866	682,952	1,656,197
Preston	30	2,399	3,635,812	179,832	5,196,188	12,060,131
Renfrew	24	1,027	1,447,909	110,027	3,184,454	5,626,062
Ridgetown	11	194	310,637	14,387	660,910	1,324,891
St. Catharines	98	10,150	18,442,095	1,112,753	40,629,677	71,772,118
St. Marys	20	572	827,075	418,954	2,233,190	4,214,747
St. Thomas	37	1,493	2,143,879	125,690	3,579,242	7,578,614
Sarnia	45	6,412	12,980,431	5,725,860	50,996,985	93,555,682
Sault Ste. Marie	46	6,102	12,060,931	4,466,828	30,224,314	57,674,326

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[1] Net value is derived from gross value by deducting the cost of materials, fuel and electricity.

10.—Statistics of Manufactures of Municipalities, each with a Gross Production of $1,000,000 or Over, and with Three or More Establishments, 1944—concluded

Province and Municipality	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products[1]
	No.	No.	$	$	$	$
Ontario—concluded						
Seaforth	11	233	285,708	24,143	803,163	1,217,254
Simcoe	26	1,230	1,702,836	140,553	9,089,518	14,250,031
Smiths Falls	19	1,165	1,779,803	86,408	2,844,761	4,928,927
Southampton	5	352	531,826	33,237	974,646	1,904,334
Stratford	55	3,320	5,278,131	266,928	8,952,795	16,185,210
Strathroy	19	560	573,625	39,220	1,854,817	3,150,614
Streetsville	10	130	202,411	32,200	2,008,230	2,393,899
Sudbury	40	706	1,012,563	79,882	2,257,275	4,388,877
Swansea	6	712	1,055,003	133,595	1,406,178	3,491,766
Tavistock	13	253	283,628	24,014	1,645,270	2,161,511
Thorold	20	1,519	3,222,813	1,708,742	6,547,590	15,230,253
Tillsonburg	19	518	763,342	91,066	7,439,808	10,471,925
Timmins	24	386	528,488	45,580	1,008,412	2,172,591
Toronto	3,344	154,538	260,776,613	11,743,947	513,429,109	1,020,345,353
Trenton	24	1,700	2,063,624	312,949	11,242,571	17,215,968
Walkerton	16	445	523,589	22,092	729,597	1,579,274
Wallaceburg	17	2,412	3,842,089	797,125	8,457,974	15,861,457
Waterloo	50	2,746	4,410,661	245,253	5,573,745	15,866,729
Welland	51	8,352	15,276,965	3,834,640	28,253,060	69,300,762
Wellington	8	168	178,301	44,678	910,166	1,555,463
West Lorne	6	222	306,963	9,722	1,235,903	2,108,266
Weston	28	4,135	7,406,507	281,735	9,262,999	19,426,279
Whitby	11	532	646,638	35,786	1,333,036	2,468,925
Windsor	231	35,912	80,667,573	4,890,272	232,102,240	387,603,874
Wingham	12	295	361,144	24,197	1,319,362	1,951,943
Woodstock	57	3,467	5,072,866	303,699	9,771,462	20,413,620
Manitoba—						
Brandon	33	653	906,404	111,058	5,438,755	7,364,005
Neepawa	8	132	182,331	97,010	477,365	1,006,467
St. Boniface	52	3,972	6,574,784	500,042	69,115,399	87,881,913
Selkirk	7	656	1,065,430	292,769	1,003,640	2,882,660
The Pas	7	154	281,968	6,180	373,272	1,401,735
Transcona	6	4,228	7,779,061	744,933	10,172,006	19,170,336
Winnipeg	686	25,870	38,824,299	2,445,806	119,917,745	198,169,626
Saskatchewan—						
Melville	8	67	82,402	26,227	1,200,752	1,392,612
Moose Jaw	44	1,627	2,529,167	429,496	29,660,736	35,498,190
Prince Albert	34	1,590	2,444,265	168,255	12,712,284	18,547,695
Regina	104	3,148	5,542,252	1,106,884	29,150,728	42,261,459
Saskatoon	84	2,254	3,340,519	399,886	29,709,680	39,384,240
Swift Current	11	117	157,579	21,491	995,417	1,391,854
Yorkton	11	147	183,369	31,051	864,447	1,229,733
Alberta—						
Calgary	205	6,723	10,902,956	1,628,614	56,746,480	86,212,746
Edmonton	189	7,520	11,538,843	653,505	76,568,171	101,479,927
Lethbridge	30	761	1,002,992	84,010	3,152,028	6,601,853
Medicine Hat	26	1,106	1,542,361	89,299	9,760,753	13,362,148
Red Deer	11	124	172,750	27,928	1,222,068	1,687,143
British Columbia—						
Cranbrook	11	193	339,340	41,917	658,119	1,303,838
Kamloops	19	232	329,031	16,906	481,693	1,072,413
Kelowna	25	585	819,618	59,937	1,567,730	2,964,231
Mission	18	305	434,868	43,337	2,213,398	3,153,889
Nanaimo	24	385	635,034	37,804	808,818	2,425,489
Nelson	24	310	432,437	34,163	822,402	1,741,611
New Westminster	95	5,064	8,653,475	507,689	22,353,252	41,929,249
Port Alberni	10	1,016	2,038,235	13,699	3,725,246	7,687,942
Port Moody	4	380	727,575	2,426	1,318,290	2,502,978
Prince George	34	252	317,054	38,098	479,138	1,054,134
Prince Rupert	25	1,755	3,659,628	243,319	4,186,252	10,099,310
Vancouver	933	43,473	79,141,407	3,568,106	142,416,371	289,390,718
Vernon	21	403	630,342	81,338	1,343,979	2,500,851
Victoria	150	5,169	9,434,219	499,152	11,182,591	30,346,621

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[1] Net value is derived from gross value by deducting the cost of materials, fuel and electricity.

CHAPTER XIX.—CONSTRUCTION

CONSPECTUS

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The purpose of this Chapter is to co-ordinate such official statistics on the construction industry as are available and to give, so far as possible, a complete picture of construction from year to year. Official statistics, although constantly undergoing improvement, have many gaps and it is necessary to try to bridge these by presenting data from outside sources. For instance, Section 3 contains data from a private source on construction contracts awarded during specified years. These are in the nature of a forecast of the amount of construction work contemplated in a given year. It is usually some time after contracts are awarded that work actually starts and, in the case of contracts of large-scale undertakings, the work is seldom finished within one year. On the other hand, the official statistics of the Annual Census of Construction given in Section 4 cover work of all kinds actually completed in a given year.

Section 1.—The Government and the Construction Industry

Subsection 1.—Public Contracts

Since the establishment of the Department of Reconstruction and Supply in January, 1946, Government reconstruction programs, so far as they concern construction projects, are determined as to urgency and put into execution in order of importance. Also, each project is scored as to whether the available labour and materials required might be deterring any more necessary housing construction. Close liaison is carried on between the Department of Reconstruction and Supply and the Department of Public Works.

Subsection 2.—Government Aid to Civil Housing*

Canada's supply of adequate housing falls far short of actual needs. While this condition undoubtedly existed prior to the 1930's, it was not widely recognized With the general depression of economic activity through the period 1929-36, residential construction fell to such a low level that already-existing overcrowding and obsolescence were further aggravated. The high vacancy rate in the depression years, particularly for apartment dwellings, was a product not of an over-supply of dwellings, but of enforced "doubling-up" of families whose incomes were not sufficient to provide separate living quarters.

The construction industry had not recovered from the slump of the early 1930's when war production began to drain off materials and labour required for housing construction. At the same time, increased personal income allowed many families to expand into separate or larger dwelling units. These two factors, coupled with unprecedented marriage rates during the war years and the months immediately following, compounded an already critical shortage of living quarters throughout the Dominion.

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* Revised under the direction of C. M. Isbister, Chief Economist, Central Research and Development Division, Dominion Bureau of Statistics, by C. H. McDonald, Chief, Housing Statistics.

The Central Mortgage and Housing Corporation.—To provide co-ordination in the housing field, the Central Mortgage and Housing Corporation was incorporated by an Act of the Twentieth Parliament (December, 1945). Briefly, its purpose and functions are: (1) to administer the National Housing Act, 1944, and earlier housing legislation; (2) to provide facilities for the rediscounting of mortgages by lending institutions; and (3) to administer the Emergency Shelter Regulations.

As a result of further consolidation of the Dominion Government's operations in the housing field, the Central Mortgage and Housing Corporation also directs the activities of Wartime Housing Limited.

Wartime Housing Limited.—Wartime Housing Limited, a Crown Company, was formed on Feb. 28, 1941. By the end of 1946, more than 25,000 houses had been built across Canada by the Company, exclusive of the many auxiliary buildings such as hospitals, schools, community centres and fire-halls.

Originally created to provide accommodation for war workers and their families near industrial developments essential to the prosecution of the War, the Company now constructs homes for veterans on a rental basis. All homes built since 1944 and those vacated by war-workers are rented to veterans. By the end of 1946, 51 p.c. of all such units were occupied by ex-service men and their families.

The municipality co-operates with the Dominion Government in providing shelter for veterans, supplying a fully developed lot for building purposes to the Company for $1. The Company agrees to pay, in lieu of taxes, $24 per annum for each house of two or fewer bedrooms, and $30 per year on those with three or more bedrooms, plus $1 per year per house for street lighting. Rentals are from $22 to $40 per month. At the end of an agreed period, determined by cost of construction, Wartime Housing agrees to sell the houses to the municipality for $1,000 each.

At present, many requests are being received from individuals for permission to purchase these houses, and consideration is being given these inquiries. Conditions must be agreed upon by the municipality and the Dominion Government.

1.—Houses Completed by Wartime Housing Limited, 1944-46

Location	1944	1945	1946	Location	1944	1945	1946
	No.	No.	No.		No.	No.	No.
Nova Scotia—				**Ontario—**			
Halifax	109	54	75	Brampton	Nil	Nil	5
Liverpool	50	Nil	Nil	Brantford	19	81	101
				Chalk River	Nil	130	95
New Brunswick—				Cobourg	“	Nil	6
Moncton	Nil	Nil	80	Cornwall	“	“	60
Saint John	54	46	152	Elmira	“	“	22
				Fort William	“	“	100
Quebec—				Geraldton	“	“	25
Arvida	300	Nil	Nil	Guelph	“	“	27
Hull	Nil	125	150	Hamilton	32	189	Nil
Montreal	“	35	743	Kingston	1	Nil	“
Longueuil	“	Nil	4	Lindsay	Nil	“	50
Pointe-aux-Trembles	“	“	25	Listowel	“	“	7
Sherbrooke	“	“	75	London	“	70	103

1.—Houses Completed by Wartime Housing Limited, 1944-46—concluded

Location	1944	1945	1946	Location	1944	1945	1946
	No.	No.	No.		No.	No.	No.
Ontario—concluded				**Manitoba**—concluded			
Long Branch	Nil	Nil	25	Transcona	Nil	Nil	50
Niagara Falls	"	"	64	Winnipeg	"	42	574
North Bay	"	"	22				
Orillia	21	"	Nil	**Saskatchewan**—			
Oshawa	7	68	"	Moose Jaw	Nil	50	100
Ottawa	Nil	Nil	309	Prince Albert	"	Nil	50
Owen Sound	"	"	50	Regina	"	24	221
Peterborough	"	"	100	Saskatoon	"	63	155
Port Arthur	"	"	100	Sutherland	"	Nil	30
Port Hope	"	"	19	Yorkton	"	"	29
Preston	"	"	50				
St. Catharines	"	"	85	**Alberta**—			
Renfrew	"	"	56	Calgary	Nil	Nil	188
St. Marys	"	"	35	Edmonton	343	95	201
Sarnia	149	50	150	Lethbridge	Nil	Nil	50
Sault Ste. Marie	Nil	Nil	100				
Smiths Falls	"	"	56	**British Columbia**—			
Stratford	"	"	4	Esquimalt (Twp.)	100	Nil	Nil
Timmins	"	"	45	Kamloops	Nil	"	100
Toronto	35	247	568	Penticton	"	"	100
Windsor	23	227	18	Kelowna	"	"	100
				Prince Rupert	20	"	Nil
				Sea Island (Twp.)	304	25	"
Manitoba—				Vancouver	Nil	100	904
Fort Garry	Nil	Nil	25	Victoria	50	Nil	123
St. Boniface	"	"	100				
St. James	"	"	50	**Totals**	**1,617**	**1,721**	**6,911**

Housing Legislation.—The Dominion Government, since 1935, has administered legislation designed to assist in the financing and improvement of housing in Canada. The Dominion Housing Act of 1935 was the first general housing Act proclaimed, its provisions being outlined on pp. 473-474 of the 1930 Year Book. Some of the loans made to house builders under the provisions of this Act are outstanding, but otherwise it is now inoperative.

The Home Improvement Loans Guarantee Act, 1937, followed. The number of loans granted under this Act are shown on pp. 370-371 of the 1941 Year Book. This Act is also now inoperative, with the exception of a few outstanding loans.

In 1938, to encourage the builders of new homes by means of the provision of long-term housing loans, the first of the National Housing Acts was made law. An outline of its provisions appears at pp. 469-470 of the 1940 Year Book.

The present legislation is the National Housing Act 1944, which came in force on Jan. 18, 1945. Details of this Act are given below. The following table shows the number of loans made, and the amounts approved under the housing legislation passed since 1935.

2.—Numbers and Amounts of Loans Approved under Dominion Housing Legislation, by Provinces, 1938-46

Note.—This table is a combined statement of the net loans (cancellations and new loans) made under the three Acts named in the preceding text. Loans and amounts approved under the 1935 Act from October, 1935, to December, 1937, are given at p. 447 of the 1945 Year Book.

Province	1938	1939	1940	1941	1942	1943	1944	1945	1946
	LOANS								
	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E.I.	5	2	1	Nil	Nil	Nil	Nil	Nil	4
N.S.	139	144	94	72	14	4	6	59	100
N.B.	50	50	30	25	7	Nil	Nil	23	82
Que.	355	512	397	425	91	246	−19[1]	462	820

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[1] Loans cancelled exceeded loans approved by the number and amount stated.

2.—Numbers and Amounts of Loans Approved under Dominion Housing Legislation, by Provinces, 1938-46—concluded

Province	1938	1939	1940	1941	1942	1943	1944	1945	1946
	LOANS—concluded								
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Ont....	1,076	2,823	3,152	2,458	686	1,170	772	2,067	3,254
Man....	110	264	429	602	61	164	218	634	995
Sask...	5	30	24	22	1	Nil	18	94	215
Alta....	Nil	Nil	Nil	Nil	Nil	"	Nil	469	624
B.C....	784	724	1,101	1,089	147	136	398	625	1,219
Totals..	**2,524**	**4,549**	**5,228**	**4,693**	**1,007**	**1,720**	**1,393**	**4,433**	**7,313**
	AMOUNTS								
	$	$	$	$	$	$	$	$	$
P.E.I..	26,000	11,400	6,400	–	–	–	–	–	20,560
N.S....	571,831	563,880	350,030	247,930	48,820	12,800	20,600	265,760	532,380
N.B....	240,750	223,130	112,650	90,375	23,120	–	–	100,620	998,450
Que....	2,939,553	4,256,502	2,402,410	1,428,137	327,730	815,678	−4,140[1]	2,991,770	8,926,110
Ont....	7,376,842	11,341,565	10,016,187	7,568,169	2,017,116	3,695,642	2,718,435	10,254,206	25,900,430
Man....	606,539	1,269,896	1,625,468	1,993,960	187,554	516,144	777,992	3,030,448	5,032,800
Sask...	16,800	236,302	73,195	79,100	3,600	–	62,460	402,620	1,775,080
Alta....	–	–	–	–	–	–	–	2,098,800	4,027,980
B.C....	2,863,634	2,405,043	3,299,742	3,265,552	420,956	410,869	1,279,680	3,119,000	8,371,750
Totals..	**14,641,949**	**20,307,718**	**17,886,082**	**14,673,223**	**3,028,896**	**5,451,133**	**4,855,027**	**22,263,224**	**55,585,540**

[1] Loans cancelled exceeded loans approved by the number and amount stated.

National Housing Act, 1944.—Features of this Act as originally proclaimed appear at pp. 455-457 of the 1946 Year Book. In 1946 amendments were introduced to certain portions of the Act to encourage farm housing, and to put in force the Home Extension Loan Plan (Part IV, NHA, 1944). The Act was amended also, to correspond with the administrative changes involved in the transfer to the Minister of Reconstruction and Supply of the duties, powers and functions of the Minister of Finance, under the National Housing Act, 1944, except the authority of the Minister to pay moneys out of the consolidated revenue fund or to make grants for slum clearance.

Operations carried on under the provision of the 1944 Act over the period Jan. 18, 1945 to Dec. 31, 1946, are summarized as follows: number of loans made, 7,313; number of family housing units assisted, 11,763; amount of loans approved, $55,585,540; average amount of loan, $4,725.

An outline of present status of the Act, operations carried out under it and of related legislation (Emergency Shelter) is given below.

Loans to Prospective Home Owners.—While the essential features of the joint loan conditions have been retained, certain changes were introduced to offset increases in construction costs and to ease the burden of families who have been forced to buy homes. Lending values were increased to approximate current building costs, and the usual period of amortization was increased from 20 to 25 years, the 30-year maximum being retained in special cases. The maximum loan now available is $7,000 with a required equity of $1,300. On loans up to this maximum, lending value is calculated as 90 p.c. of the first $4,000, plus 70 p.c. of any excess over $4,000 value.

Integrated Housing Plan.—The purpose of the Integrated Housing Plan is to encourage residential construction by providing financial assistance and building material priorities to builders. Conditions of the Plan include: *(a)* a maximum, pre-determined sales price; *(b)* priorities assistance to the builder in minimum quantity of building materials; *(c)* agreement of builder to have each house roofed within 4 months of starting dates; *(d)* guarantee by the Central Mortgage and Housing Corporation to purchase unsold houses within six months of date of completion; *(e)* restriction of sale to veterans (1939-45).

Co-operative Housing.—The terms under which loans are made to co-operative groups intending to build housing projects are given at p. 456 of the 1946 Year Book.

Home Conversion Plan.—Another measure designed to provide additional housing units with minimum delay was the Home Conversion Plan, established by a series of Orders in Council of which the first was P.C. 2641 of Apr. 1, 1943, giving the Government authority to lease buildings in certain cities for conversion into multiple housing units and to sublet them to suitable tenants. By Dec. 31, 1946, 2,108 new housing units had been provided from 260 conversion projects in 16 Canadian cities.

With the shortage of building materials, high costs, and lack of dwellings suitable for conversion, further developments of this Plan will not be pressed by Central Mortgage and Housing Corporation.

Housing Enterprises of Canada Limited.—Amendments to the National Housing Act in 1945 made it possible for the major lending institutions to form companies for the purpose of constructing housing projects for rental purposes. Agreements between Housing Enterprises of Canada and the Central Mortgage and Housing Corporation provide that all low-rental housing projects financed under the National Housing Act be approved by the Corporation as to location, costs, rental charges, etc. The Company is required to invest 10 p.c. of the cost of the project, while the remaining 90 p.c. is financed by the Central Mortgage and Housing Corporation through a mortgage loan with interest at 3 p.c.

By Dec. 31, 1946, Housing Enterprises of Canada and its subsidiary companies had 2,811 housing units under construction, but no dwellings had been completed.

Loans to Primary Producers for Housing of Employees.—To assure satisfactory living quarters for employees engaged in the production of primary goods in outlying areas, the National Housing Act provides that assistance be given to primary producers in the construction of housing projects. An incorporated company engaged in mining, lumbering, logging or fishing may borrow up to 80 p.c. of the lending value of the project, with interest at 4 p.c. The amortization period varies with the location but must not exceed 15 years.

The Act requires that basic family accommodation be provided by the company, with available community facilities. These projects must be of a size to assure economy in construction and operation.

Farm Housing.—In 1946, Part III of the National Housing Act dealing with rural housing was amended, enabling the Corporation to proceed with organization of procedures for its administration.

Joint loans may be made to assist in the construction of houses on farms. Where the farm is not mortgaged or is without other encumbrance, the amount of the loan is limited to the least of $5,000, the cost of building the house, or two-thirds of the appraised value of the farm. If there is already a mortgage or other encumbrance, the loan is the least of $8,000, the sum of the cost of building the house and existing indebtedness or two-thirds of the appraised value of the farm. In this second instance it must be shown that the mortgage was not secured to increase the amount of the new loan.

Loans for farm housing carry interest at 4·5 p.c. per annum, and are repayable up to 20 years after the date of completion of the house. Such dwellings must conform to standards approved by the Central Mortgage and Housing Corporation.

Home Extension Loans.—This portion of the Act is intended to assist home owners in creating additional dwelling units within their homes. The loans are not intended for improvement of already existing dwellings unless the changes are a part of the conversion plan.

By Dec. 31, 1946, 25 Home Extension Loans, creating 53 housing units for a total sum of $76,315 had been approved. The loans may be made through any chartered bank or approved instalment credit agency, under arrangement with Central Mortgage and Housing Corporation.

Emergency Shelter Regulations.—This legislation is intended to assist municipalities in converting unoccupied houses, barracks or other suitable buildings for the accommodation of families suffering actual distress or hardship through lack of shelter. In December, 1945 (P.C. 7502), administration of these Regulations was changed from the Wartime Prices and Trade Board to the Central Mortgage and Housing Corporation.

Briefly, the functions of the Emergency Shelter Administration are: to help municipalities procure surplus Government buildings for conversion purposes, to assure that all vacant houses are occupied, to maintain liaison with veteran and social-welfare agencies and to assist universities to provide living accommodation for married veteran students.

By the end of 1946, the Dominion Government had expended more than $2,000,000 for Emergency Shelter of which about $725,000 was for the housing of married student veterans. More than 7,000 dwelling units were in operation at that time, in leased quarters valued at nearly $6,000,000.

Housing Research and Community Planning.—Provision for research and community planning is made in Part V of the National Housing Act, 1944, and for enquiries into problems of mortgage transactions of the Central Mortgage and Housing Corporation.

There are three main branches of research carried on: economic and statistical enquiries; technical research in materials, equipment, standards, etc., of housing; and design of housing. Competitions in housing design have been set up across the Dominion.

Veterans' Land Act.—Under the terms of the Veterans' Land Act a program of construction of homes on small holdings outside urban areas was set up. This project remains a responsibility of the Minister of Veterans Affairs. (See also Chapter XXX on Veterans Affairs, Sect. 5, Subsection 3.)

Farm Improvement Loans Act.—One of the broad aims behind this legislation is the improvement of living conditions on farms, by the provision of electrification, refrigeration, heating systems, water systems, etc. The Act is more fully dealt with in the Agriculture Chapter, at p. 332.

Section 2.—The Annual Survey of Dwelling Units Constructed

The survey of dwelling units and new residential buildings completed in Canada, was commenced by the Bureau of Statistics in 1945, and continued during 1946. The basic data for this survey was obtained from 623 incorporated municipalities, while provincial authorities and agencies of the Dominion Government also provided similar information for unorganized areas of the provinces, the Northwest Territories and Yukon. This group of municipalities includes all those in the 12 metropolitan areas, others having a population of 5,000 or over, and a further selected number chosen on the basis of scientific sampling technique, that is, a "random" sample of approximately 10 p.c. and 5 p.c., respectively, of other urban and other rural municipalities having a population under 5,000. The 623 municipalities represent 16·2 p.c. of the total number of incorporated municipalities in Canada, or approximately 67 p.c. of the total population in these areas.

The results of this survey during the calendar year 1946, compared with similar statistics for 1945, are summarized in the tables on pp. 589-590. It is estimated that there were 63,637 new dwelling units created in 1946, as compared with 48,599 completed in 1945, an increase of 30·9 p.c., and that the total number of new buildings containing dwelling units completed in 1946 was 53,199, as compared with 37,112 completed in 1945, an increase of 43·4 p.c.

The 1946 total is comprised of 58,828 dwelling units (92·4 p.c.) resulting from new construction, and 4,809 dwelling units (7·6 p.c.) from conversions, as compared with 42,617 dwelling units (87·7 p.c.) by new construction, and 5,982 dwelling units (12·3 p.c.) by conversions, in 1945. Thus, for new housing construction excluding conversions, the number of dwelling units completed in 1946, increased by 38·0 p.c. as compared with the previous year.

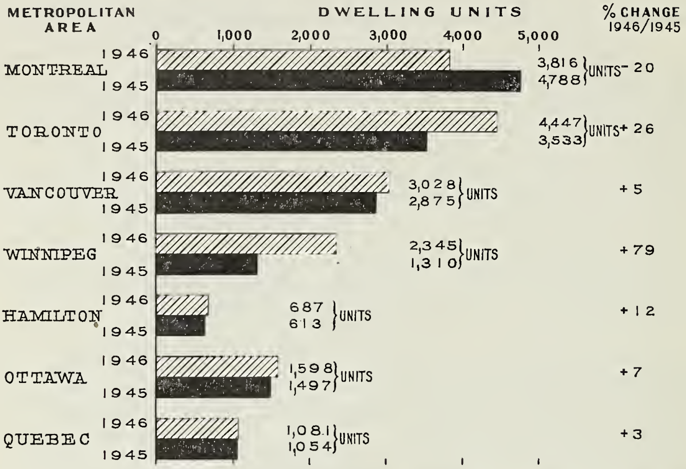
The largest number of dwelling units completed in 1946 were single dwellings and 67·3 p.c. of all new residential construction were buildings of wood frame with wood siding and shingles construction; those of wood frame with stucco on lath construction ranked second. A comparison of the total number of dwelling units, exclusive of conversions, with the total number of new buildings, shows that there was an average of 1·10 units per building for 1946, compared to 1·15 for 1945; this is accounted for by the larger proportion of single dwellings built in 1946, as compared with the previous year.

The results of new building construction during 1946 indicate that the weight of new residential construction is taking place in urban centres other than metropolitan areas. While new dwelling unit completions in metropolitan areas increased by over 14 p.c. in 1946 as compared with 1945, these represented only 32·1 p.c. of the total for 1946, as against 36·8 p.c. of total 1945 completions. Completions in other urban areas, however, reflect a marked change in both respects, these having increased in 1946 by over 49 p.c. of the 1945 total, and represented 39·2 p.c. of total completions in 1946, as compared with 34·3 p.c. of the 1945 total.

DWELLING UNITS COMPLETED[1]

METROPOLITAN AREAS OF CANADA'S 7 LARGEST CITIES

1945 AND 1946



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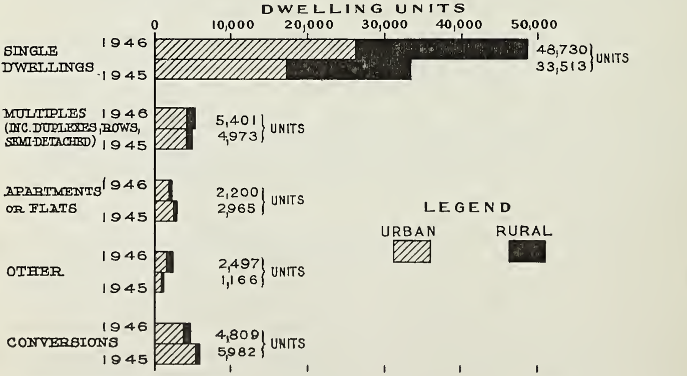
[1] Including conversions.

DWELLING UNITS BUILT IN CANADA, BY TYPE

1945 AND 1946



3.—New Dwelling Units and New Residential Buildings Completed in 1945 and 1946, by Areas or Regions, with Percentage Changes

Area or Region	Dwelling Units			Dwelling Units Excluding Conversions			New Residential Buildings		
	1945	1946	Increase or Decrease	1945	1946	Increase or Decrease	1945	1946	Increase or Decrease
	No.	No.	p.c.	No.	No.	p.c.	No.	No.	p.c.
Municipalities—									
Metropolitan areas	17,865	20,443	14·43	15,585	18,704	20·01	12,337	16,324	32·32
Other urban	16,690	24,905	49·22	13,563	22,719	67·51	11,962	20,408	70·61
Other rural	12,378	15,554	25·65	11,844	14,718	24·26	11,194	13,861	23·82
Totals, Municipalities	46,933	60,902	29·76	40,992	56,141	36·95	35,493	50,593	42·54
Unorganized areas	1,537	2,620	70·46	1,501	2,577	71·68	1,499	2,498	66·64
Totals, Provinces	48,470	63,522	31·05	42,493	58,718	38·18	36,992	53,091	43·52
Yukon and N.W.T.	129	115	−10·85	124	110	−11·29	120	108	−10·00
Canada	**48,599**	**63,637**	**30·94**	**42,617**	**58,828**	**38·04**	**37,112**	**53,199**	**43·35**

4.—New Dwelling Units and New Residential Buildings Completed in 1945 and 1946, by Type of Building

Type of Building	Dwelling Units				New Residential Buildings			
	1945		1946		1945		1946	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Single	33,513	69·0	48,730	76·6	33,513	90·3	48,730	91·6
Semi-detached or double	1,800	3·7	2,456	3·8	900	2·4	1,228	2·3
Row or terrace	235	0·5	510	0·8	65	0·2	120	0·2
Duplex	1,894	3·9	1,748	2·7	947	2·6	874	1·6
Triplex	1,044	2·1	687	1·1	348	0·9	229	0·4
Apartment or flat	2,965	6·1	2,200	3·5	485	1·3	415	0·8
Store or other business premises and apartment or flat	971	2·0	2,486	3·9	713	1·9	1,592	3·0
Other and unclassified	195	0·4	11	0·1	141	0·4	11	0·1
Conversions	5,982	12·3	4,809	7·5	–	–	–	–
Totals	**48,599**	**100·0**	**63,637**	**100·0**	**37,112**	**100·0**	**53,199**	**100·0**

5.—New Residential Buildings Completed in 1945 and 1946, by Type of Construction

Type of Construction	1945		1946	
	No.	P.C. of Total	No.	P.C. of Total
Wood frame with wood siding and shingles	23,857	64·3	35,804	67·3
Wood frame and brick veneer	4,011	10·8	4,790	9·0
Wood frame with stucco and lath	4,387	11·8	6,554	12·3
Cinder or cement blocks and stucco	731	2·0	1,629	3·1
Solid Masonry: Brick facing and masonry blocks	1,108	3·0	1,427	2·7
Solid brick	1,797	4·8	1,890	3·6
Solid Masonry: Stone facing and masonry blocks	129	0·4	167	0·3
Other and unclassified	1,092	2·9	938	1·7
Totals	**37,112**	**100·0**	**53,199**	**100·0**

6.—Average Number of Dwelling Units per Completed Building, by Areas or Regions, 1945 and 1946

Area or Region	Buildings		Dwelling Units Excluding Conversions		Average per Building	
	1945	1946	1945	1946	1945	1946
	No.	No.	No.	No.	No.	No.
Municipalities—						
Metropolitan areas	12,337	16,324	15,585	18,704	1·26	1·14
Other urban	11,962	20,408	13,563	22,719	1·13	1·11
Other rural	11,194	13,861	11,844	14,718	1·06	1·06
Totals, Municipalities	35,493	50,593	40,992	56,141	1·15	1·11
Unorganized areas	1,499	2,498	1,501	2,577	1·00	1·03
Totals, Provinces	36,992	53,091	42,493	58,718	1·15	1·10
Yukon and N.W.T	120	108	124	110	1·03	1·02
Canada	**37,112**	**53,199**	**42,617**	**58,828**	**1·15**	**1·10**

7.—New Dwelling Units[1] in the Metropolitan Areas, Completed in 1945 and 1946

Metropolitan Area	1945		1946		Percentage Increase or Decrease, 1946 over 1945
	No.	P.C. of Total	No.	P.C. of Total	
Halifax, N.S	189	0·4	666	1·1	+252·38
Saint John, N.B	163	0·3	300	0·5	+84·05
Quebec, Que	1,054	2·2	1,081	1·7	+2·56
Montreal, Que	4,788	9·9	3,816	6·0	−20·30
Ottawa, Ont	1,497	3·1	1,598	2·5	+6·75
Toronto, Ont	3,533	7·3	4,447	6·9	+25·87
Hamilton, Ont	613	1·3	687	1·1	+12·07
London, Ont	446	0·9	822	1·3	+84·30
Windsor, Ont	747	1·5	797	1·2	+6·69
Winnipeg, Man	1,310	2·7	2,345	3·7	+79·01
Vancouver, B.C	2,875	5·9	3,028	4·8	+5·32
Victoria, B.C	650	1·3	856	1·3	+31·69
Totals, Metropolitan Areas	**17,865**	**36·8**	**20,443**	**32·1**	**+14·43**
Totals, Canada	**48,599**	**100·0**	**63,637**	**100·0**	**+30·94**

[1] Including conversions.

Section 3.—Contracts Awarded and Building Permits Issued

In this Section, statistics are given of work actually in sight either as contracts awarded or as building permits. These figures are related to those of work performed during the year only so far as the work thus provided for is completed and duly reported in the Census of Construction. Further, values of contracts awarded, and especially of building permits, are estimates (more often underestimates) of work to be done. Obviously, these statistics and those of Section 3 cannot be expected to agree, since much work contracted for towards the end of any one year is often not commenced until the next and, especially as regards large contracts or contracts undertaken late in any year, extends into more than one year. The figures here given are, therefore, supplementary to those of Section 3 and are valuable as showing from year to year the work immediately contemplated during the period.

Construction Contracts.—The figures published by MacLean Building Reports, Limited, for construction contracts awarded during 1946 showed a total of $663,355,100. This amount represented an increase of 62 p.c. over the $409,032,700 reported for 1945 and exceeded the previous peak of $577,000,000 reached in 1929.

Every type of construction, as shown in Table 9, contributed to this increase. The value of residential building amounted to $213,050,500 or 32 p.c. of the total value of all construction, an increase of 8·7 p.c. over 1945. A great part of this construction was made up of single and multiple residences although the value of apartment construction was more than three times the amount of the previous year.

Industrial construction increased 83·1 p.c. over 1945, engineering construction 144·6 p.c. and business or commercial construction 116·5 p.c.

Regionally, Ontario accounted for the greatest volume with total awards of $252,787,400, or 38·1 p.c. of the total, followed by Quebec with 34·2 p.c. The greatest percentage increases over 1945 were shown by New Brunswick and Quebec, amounting to 149 p.c. and 86 p.c., respectively.

8.—Values of Construction Contracts Awarded, 1912-46

(From MacLean Building Reports, Ltd.)

Year	Value of Construction Contracts	Year	Value of Construction Contracts	Year	Value of Construction Contracts
	$		$		$
1912	463,083.000	1924	276,261,100	1936	162,588,000
1913	384,157,000	1925	297,973,000	1937	224,056,700
1914	241,952,000	1926	372,947,900	1938	187,277,900
1915	83,916,000	1927	418,951,600	1939	187,178.500
1916	99,311,000	1928	472,032,600	1940	346,009.800
1917	84,841,000	1929	576,651,800	1941	393,991,300
1918	99,842,000	1930	456,999,600	1942	281,594,100
1919	190,028,000	1931	315,482,000	1943	206,103,900
1920	255,605,000	1932	132,872,400	1944	291,961,800
1921	240,133,300	1933	97,289,800	1945	409,032,700
1922	331,843,800	1934	125,811,500	1946	663,355,100
1923	314,254,300	1935	160,305,000		

9.—Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1941-46

(From MacLean Building Reports, Ltd.)

Province	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$
Prince Edward Island	413,800	566,100	719,300	657,900	904.900	650,200
Nova Scotia	25,309,300	19,780,500	7,535,500	9,157,200	14,681,900	13,489,400
New Brunswick	11,013,300	5,958,900	6,620,600	9,898,000	10,720,000	26,698,500
Quebec	154,541,200	92,235,500	61,816,700	89,884,800	121,943,400	226,809,500
Ontario	145,598,600	108,679,500	83,025,300	111,741,800	151,856,000	252,787,400
Manitoba	11,701,600	13,914,300	10,083,900	12,906,400	22,228,700	25,741,500
Saskatchewan	11,098,700	5,480,200	3,970,000	5,677,600	15,986,100	19,497,500
Alberta	15,598,800	14,401,100	18,529,300	19,501,900	32,677,800	38,971,900
British Columbia	18,716,000	20,578,000	13,803,300	32,536,200	38,033,900	58,709,200
Grand Totals	**393,991,300**	**281,594,100**	**206,103,900**	**291,961,800**	**409,032,700**	**663,355,100**

9.—Values of Construction Contracts Awarded, by Provinces and Types of Construction, 1941-46—concluded

Type of Construction	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$
RESIDENTIAL—						
Apartments	6,177,300	868,200	913,400	8,856,600	6,282,800	18,998,800
Residences	86,222,100	78,411,600	78,195,700	122,386,500	189,740,400	194,051,700
TOTALS, RESIDENTIAL	92,399,400	79,279,800	79,109,100	131,243,100	196,023,200	213,050,500
BUSINESS—						
Churches	2,808,900	1,250,700	1,198,400	1,688,100	3,321,700	14,426,500
Public garages	3,347,900	959,200	1,269,900	1,940,100	3,245,400	16,859,900
Hospitals	6,445,100	5,037,600	6,144,600	18,529,300	22,061,300	23,863,700
Hotels and clubs	2,220,200	5,211,300	2,370,400	2,442,300	2,589,800	16,071,600
Office buildings	5,464,700	5,090,300	2,826,700	3,742,900	5,316,500	18,912,400
Public buildings	50,870,100	65,856,300	30,660,400	13,022,000	7,407,400	7,411,600
Schools	5,743,600	3,261,200	4,304,800	8,346,700	15,583,700	23,019,500
Stores	9,406,100	2,994,600	1,813,100	3,999,300	6,571,200	29,271,200
Theatres	2,115,300	302,200	244,200	322,500	401,400	8,921,500
Warehouses	12,130,200	8,201,400	10,185,400	14,590,700	19,798,500	28,047,600
TOTALS, BUSINESS	100,552,100	98,164,800	61,017,900	68,623,900	86,296,900	186,805,500
INDUSTRIAL	92,805,300	74,084,500	32,857,000	58,712,100	75,540,200	138,328,500
ENGINEERING—						
Bridges	3,550,900	1,351,200	2,059,200	1,519,000	2,099,300	5,279,200
Dams and wharves	12,440,900	6,950,900	3,708,200	5,718,400	2,467,000	10,379,700
Sewers and watermains	6,772,400	3,567,800	1,795,200	2,244,900	5,284,900	13,144,900
Roads and streets	25,093,000	12,414,200	11,222,600	14,428,100	20,231,300	56,941,600
General engineering	60,377,300	5,780,900	14,334,700	9,472,300	21,089,900	39,425,200
TOTALS, ENGINEERING	108,234,500	30,065,000	33,119,900	33,382,700	51,172,400	125,170,600

Building Permits.—Statistics of building permits were first collected in 1910, when the series covered 35 urban centres; in 1920 it was extended to cover 58 municipalities, including unincorporated suburban areas as, with the advent of the automobile, a growing percentage of persons working in cities were residing outside the municipal boundaries of the urban centres in which they earned their living. In 1940 the series was again extended to cover 204 municipalities.

Building permits issued in 1946 registered an increase of 94·5 p.c. compared with 1945.

10.—Values of Building Permits Issued by 204 Municipalities, 1945 and 1946

NOTE.—Statistics for these series covering years previous to 1945 will be found in the corresponding table of earlier editions of the Year Book. For the 35 cities marked • the record goes back to 1910; the 23 places marked o were added in 1920.

Province and Municipality	1945	1946	Province and Municipality	1945	1946
	$	$	**Nova Scotia**—concluded	$	$
Prince Edward Island	**600,705**	**451,250**	o New Glasgow	221,610	221,710
o Charlottetown	600,705	451,250	New Waterford	68,210	158,345
			North Sydney	107,500	170,650
			• Sydney	474,780	1,162,037
Nova Scotia	**4,101,950**	**7,442,787**	Sydney Mines	118,840	186,300
			Truro	330,170	783,725
Amherst	41,031	193,650	Yarmouth	113,160	174,590
Bridgewater	67,150	123,650			
Dartmouth	280,095	638,681	**New Brunswick**	**1,686,789**	**6,437,553**
Glace Bay	308,684	555,099			
• Halifax	1,923,295	3,003,850	Campbellton	78,938	295,135
Liverpool	47,425	70,500	Chatham	7,000	87,300

10.—Values of Building Permits Issued by 204 Municipalities, 1945 and 1946—continued

Province and Municipality	1945	1946
	$	$
New Brunswick—conc.		
Dalhousie	13,290	90,970
o Fredericton	176,260	2,633,318
• Moncton	584,725	2,038,471
Newcastle	14,750	66,500
• Saint John	742,076	1,086,114
St. Stephen	69,750	139,745
Quebec	**50,250,668**	**111,815,328**
Cap-de-la-Madeleine	512,437	808,177
Chicoutimi	635,325	972,650
Coaticook	55,615	135,840
Drummondville	384,850	640,400
Granby	586,269	2,022,382
Grand'Mère	310,890	735,690
Hampstead	227,490	616,400
Hull	673,675	907,875
Iberville	178,475	137,130
Joliette	1,214,145	1,165,570
Jonquière	294,375	923,000
Lachine	973,111	5,718,446
Laprairie	71,250	104,350
La Tuque	1,082,924	272,545
Lévis	291,350	373,400
Longueuil	506,535	420,000
Mégantic	106,595	408,977
• Montreal (• Maisonneuve)	21,932,698	53,696,300
Montreal East	391,348	4,017,520
Montreal North	516,390	1,319,400
Montreal West	41,050	111,100
Mount Royal	1,761,650	2,211,291
Noranda	216,850	1,490,410
Outremont	866,100	1,742,000
Pointe-aux-Trembles	297,055	289,025
Pointe Claire	255,613	571,902
• Quebec	4,351,565	6,063,025
Rimouski	213,700	1,351,260
Rivière-du-Loup	86,024	248,020
Rouyn	86,953	859,945
Ste. Agathe-des-Monts	216,854	451,750
Ste. Anne-de-Bellevue	31,195	248,394
St. Hyacinthe	730,961	1,226,350
St. Jean	304,050	1,862,050
St. Jérôme	504,420	1,107,023
St. Joseph-de-Grantham	194,593	306,389
St. Lambert	267,700	482,483
St. Laurent	406,230	1,875,422
o Shawinigan Falls	1,181,070	1,455,660
• Sherbrooke	1,749,945	2,362,255
Sorel	1,109,390	1,270,921
• Three Rivers	1,388,020	2,883,155
Val d'Or	248,885	1,155,640
Valleyfield	476,249	1,320,856
Verdun	2,090,860	2,458,900
• Westmount	227,939	1,014,050
Ontario	**80,053,564**	**150,520,167**
Amherstburg	120,810	229,550
Barrie	599,325	784,442
o Belleville	411,755	1,061,110
Bowmanville	28,040	165,470
Bracebridge	18,100	134,960
Brampton	243,994	537,517
• Brantford	609,776	1,632,405
Brockville	314,175	283,670
Burlington	278,660	426,820
Campbellford	24,450	170,800
o Chatham	1,019,320	3,636,859
Cobourg	52,100	144,975
Cochrane	34,800	103,977
Ontario—continued		
Collingwood	23,548	137,130
Cornwall	491,133	976,583
Dundas	506,700	188,900
Eastview	338,350	1,078,550
Etobicoke Twp	4,486,247	10,522,035
Forest Hill	1,191,050	2,440,800
Fort Erie	62,861	226,050
Fort Frances	114,427	313,215
• Fort William	1,071,229	2,740,082
o Galt	447,861	1,303,412
Gananoque	44,945	136,715
Gloucester Twp	480,195	1,087,800
Goderich	39,802	228,500
• Guelph	417,106	1,329,925
Haileybury	28,445	86,817
• Hamilton	5,557,629	6,467,892
Hanover	28,060	116,825
Hawkesbury	42,220	293,025
Huntsville	76,655	293,150
Ingersoll	37,402	138,242
Kapuskasing	206,900	703,475
Kenora	111,763	183,495
• Kingston	1,441,461	2,951,261
Kirkland Lake (Twp. of Teck)	201,888	392,488
• Kitchener	1,796,856	2,749,775
Leamington	252,826	302,045
Leaside	2,464,965	3,777,338
Lindsay	225,800	520,900
Listowel	16,460	89,395
• London	1,660,465	3,990,050
Long Branch	1,001,886	872,293
Mimico	359,355	557,860
Napanee	56,015	131,385
Nepean Twp	–	1,079,710
New Liskeard	50,387	199,169
Newmarket	70,125	313,525
New Toronto	687,931	1,719,121
o Niagara Falls	563,386	730,468
North Bay	407,345	868,280
North York Twp	11,280,993	9,300,908
Oakville	338,211	1,105,396
Orillia	171,730	643,105
o Oshawa	902,703	1,695,286
• Ottawa	3,007,496	7,049,495
o Owen Sound	403,170	849,834
Paris	38,157	96,665
Parry Sound	61,415	97,305
Pembroke	147,385	258,965
Perth	87,300	108,100
• Peterborough	878,505	2,433,941
Petrolia	32,500	56,205
• Port Arthur	1,445,908	2,569,019
Port Colborne	136,341	241,666
Preston	177,787	258,744
Renfrew	503,100	542,025
o Riverside	616,250	993,665
• St. Catharines	952,258	2,025,405
St. Marys	45,275	79,360
• St. Thomas	846,880	1,041,957
o Sarnia	1,539,012	1,239,873
o Sault Ste. Marie	686,233	2,361,621
Scarboro Twp	2,767,467	5,215,703
Simcoe	162,600	352,750
Smiths Falls	51,450	525,720
• Stratford	155,236	1,045,907
Sudbury	854,900	1,540,600
Swansea	183,730	380,643
Tillsonburg	138,230	362,640
Timmins	254,883	738,768
• Toronto	11,518,918	22,144,661
Trenton	80,090	499,919
Wallaceburg	31,850	207,525
Waterloo	634,562	1,368,843

10.—Values of Building Permits Issued by 204 Municipalities, 1945 and 1946—concluded

Province and Municipality	1945	1946
	$	$
Ontario—concluded		
o Welland	292,335	430,735
Weston	396,222	637,910
Whitby	128,840	311,305
• Windsor	1,961,097	5,617,259
o Woodstock	332,413	957,458
o ⎰York Twp	2,666,175	7,576,400
⎱York East Twp	2,326,973	4,006,645
Manitoba	**11,025,760**	**16,309,341**
• Brandon	229,299	1,044,665
Brooklands	53,685	115,645
Dauphin	98,810	304,585
North Kildonan	105,670	184,135
Portage la Prairie	83,526	230,447
o St. Boniface	1,891,515	2,047,175
Selkirk	92,000	188,560
The Pas	20,525	107,200
Transcona	627,005	196,129
• Winnipeg	7,823,725	11,890,800
Saskatchewan	**7,457,215**	**18,014,947**
Biggar	15,900	20,075
Estevan	75,850	177,695
Melville	62,350	242,925
• Moose Jaw	931,653	1,276,557
North Battleford	194,725	1,169,180
Prince Albert	472,160	1,343,081
• Regina	2,790,579	6,024,876
• Saskatoon	2,376,740	6,341,790
Swift Current	304,966	584,948
Weyburn	41,797	222,495
Yorkton	190,495	611,325
Alberta	**17,338,804**	**29,738,950**
• Calgary	7,280,137	11,753,793
Drumheller	61,880	166,983
• Edmonton	7,988,248	15,020,453
o Lethbridge	1,602,554	1,970,121
o Medicine Hat	405,985	827,600
British Columbia	**24,671,705**	**42,866,375**
Chilliwack	429,640	645,395
Cranbrook	55,152	174,121
Fernie	13,110	51,895
o Kamloops	469,473	1,026,600
Kelowna	736,875	1,443,359
o Nanaimo	134,704	254,733
Nelson	181,851	618,583
• New Westminster	1,491,926	2,709,230
o North Vancouver	342,970	1,020,185
Prince George	155,160	547,845
o Prince Rupert	275,354	229,812
Revelstoke	41,115	92,220
Rossland	18,895	37,520
Trail	67,220	267,048
• Vancouver	16,843,897	28,136,963
Vernon	412,778	700,430
• Victoria	3,001,585	4,910,436
Totals— 204 Municipalities	**197,187,160**	**383,596,698**
Totals— 58 Municipalities (• o)	**136,963,438**	**267,183,384**
Totals— 35 Municipalities (•)	**117,453,652**	**228,207,854**

The indexes given in Table **11** show, so far as possible, the fluctuations in building costs and their effect upon construction work and employment. The relative proportions of material and wage costs in general building are difficult to determine since such proportions vary with the type of building and the centres studied. Pre-war experience, the result of a study made in 15 cities, indicates that the average proportions of materials to labour in all kinds of construction were about two-thirds for the former to one-third for the latter. The increase in the cost of building operations in the war years has probably been much more than is indicated by the increase in the indexes of wholesale prices and wages shown in Table **11** and the proportions of these items to total costs have, no doubt, undergone some variation due to changes in types and methods of construction and to the greater use of machinery.

The estimated cost of building permits issued in 1946 for the 35 cities referred to in Table **11** was the highest recorded since 1910, being $13,930,468 over the previous high figure of $214,277,386 for 1929.

Four of the largest cities Montreal, Toronto, Winnipeg and Vancouver accounted for $115,868,724 or 50·8 p.c. of this total. In 1929 the same cities showed a value of $126,387,555 or 59 p.c. of the total permits.

11.—Values of Building Permits Taken Out in 35 Cities and Index Numbers of the Building Construction Industries, 1930-46

NOTE.—These cities are the 35 referred to (•) in Table **10**. Figures for the years 1910-29 are given at p. 422 of the 1942 Year Book.

Year	Value of Building Permits	Average Index Numbers of— (1926=100)		
		Wholesale Prices of Building Materials	Wages in Construction Industries[1]	Employment in Building Construction[2]
	$			
1930	152,404,222	90·8	118·1	134·3
1931	101,821,221	81·9	113·7	104·3
1932	38,443,406	77·2	103·5	54·1
1933	19,890,150	78·3	91·8	38·5
1934	24,911,430	82·5	89·9	47·8
1935	42,839,627	81·2	92·9	55·4
1936	36,337,439	85·3	93·4	55·4
1937	49,694,847	94·4	96·0	60·1
1938	54,532,781	89·1	98·4	60·1
1939	53,048,231	89·7	99·2	62·1
1940	70,789,456	95·6	103·6	83·5
1941	85,003,123	107·3	110·6	139·5
1942	64,571,168	115·2	117·5	157·9
1943	51,646,345	121·2	126·6	160·2
1944	83,418,721	127·3	128·4	95·3
1945	117,453,652	127·3	129·9	101·8
1946	228,157,264	134·8	[3]	145·7

[1] Compiled by the Department of Labour. [2] As reported by employers. [3] Not available.

Employment in Construction.—In Tables **12** and **13** the employment figures, shown on a monthly basis, reflect the fact that the industry is not as decidedly seasonal as is sometimes thought. The month of highest employment in the industry as a whole, in 1945, was October with 148,894 wage-earners and the lowest was February with 78,167.

12.—Employment of Wage-Earners in the Construction Industry and Their Remuneration, by Months, 1944 and 1945

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Year and Month	General and Trade Contractors and Sub-contractors	Municipalities	Harbours Board	Provincial Government Departments	Dominion Government Departments	Total
	No.	No.	No.	No.	No.	No.
1944						
January	63,326	6,151	433	3,669	1,738	75,317
February	60,600	6,221	436	3,330	1,734	72,321
March	58,976	6,431	464	5,365	1,918	73,154
April	59,418	7,564	486	9,094	1,860	78,422
May	67,637	9,384	515	17,139	2,118	96,793
June	75,649	10,539	511	20,277	2,331	109,307
July	80,608	10,556	502	25,493	2,456	119,615
August	82,667	10,803	530	26,075	2,531	122,606
September	80,599	10,086	502	19,689	2,629	113,505
October	79,286	9,454	506	19,848	2,597	111,691
November	76,387	8,781	502	19,427	2,384	107,481
December	65,766	7,019	472	10,103	1,929	85,289
Monthly Averages	70,910	8,583	488	14,959	2,185	97,125
	$	$	$	$	$	$
Wages Paid During Year	120,870,399	11,354,568	630,304	17,207,162	3,356,412	153,418,845

12.—Employment of Wage-Earners in the Construction Industry and Their Remuneration, by Months, 1944 and 1945—concluded

Year and Month	General and Trade Contractors and Sub-contractors	Municipalities	Harbours Board	Provincial Government Departments	Dominion Government Departments	Total
1945	No.	No.	No.	No.	No.	No.
January	62,645	6,313	423	5,881	3,389	78,651
February	63,087	6,483	449	4,986	3,162	78,167
March	65,525	6,918	465	6,932	3,411	83,251
April	68,798	8,291	516	12,796	4,076	94,477
May	75,535	9,617	551	16,556	4,452	106,711
June	85,600	10,361	584	21,113	4,579	122,237
July	93,410	11,041	608	21,634	4,536	131,229
August	100,258	11,492	627	22,202	5,112	139,691
September	103,614	11,140	627	24,947	4,832	145,160
October	107,528	10,887	666	25,150	4,663	148,894
November	105,402	10,077	591	25,118	4,434	145,622
December	93,270	8,192	491	10,913	3,657	116,523
Monthly Averages	85,390	9,234	550	16,518	4,192	115,884
	$	$	$	$	$	$
Wages Paid During Year	142,412,634	13,074,055	796,660	18,958,628	6,453,424	181,695,401

13.—Average Wage-Earners Employed in the Construction Industry and Total Wages Paid, by Provinces, 1944 and 1945

Province	1944		1945	
	Monthly Average of Wage-Earners Employed	Total Wages Paid During Year	Monthly Average of Wage-Earners Employed	Total Wages Paid During Year
	No.	$	No.	$
Prince Edward Island	398	570,025	332	539,030
Nova Scotia	10,451	11,462,517	11,805	11,535,549
New Brunswick	3,818	5,497,136	3,824	5,647,849
Quebec	30,023	46,616,747	33,904	52,260,775
Ontario	31,932	53,879,207	42,125	70,498,131
Manitoba	3,424	5,552,366	4,483	7,616,571
Saskatchewan	2,497	3,839,126	3,077	5,046,616
Alberta	4,576	7,869,555	5,360	8,792,709
British Columbia	10,006	18,132,166	10,974	19,758,171
Totals	**97,125**	**153,418,845**	**115,884**	**181,695,401**

Section 4.—Annual Census of all Types of Construction

The annual Census of Construction undertaken by the Dominion Bureau of Statistics covers all construction, maintenance and repair work undertaken by contractors, builders and public bodies (except the smaller municipalities) throughout Canada. It does not include maintenance and repair work on steam and electric railways, telegraph and telephone systems and the lesser public utilities when such work is done by the employees of these concerns in the ordinary way: nor can it include a substantial amount of construction in the aggregate done by farmers and other individuals who might be otherwise unemployed, performing work on their own structures. It is doubtful whether a great deal of the work of railways and utilities is construction in the sense understood in the Census: for instance, the routine "maintenance of way" expenditures, so far as they relate to inspection work, are not construction although, so far as they concern rebuilding of line for roadbed or structures, they might be said to fall in that category.

The following table shows the expenditures by steam and electric railways, telegraph and telephone systems. By subtracting the work sublet by contractors from expenditures, duplication with the Census figures is eliminated and the net totals shown are additional to the Census of Construction figures.

14.—Expenditures by Steam and Electric Railways, and Telegraph and Telephone Systems on Maintenance of Way and Structures and Maintenance of Equipment, 1942-45.

Item	1942	1943	1944	1945
	$	$	$	$
Steam Railways—				
Maintenance of way and structures	71,204,046	90,854,109	113,009,130	110,758,551
Maintenance of equipment	78,784,947	87,421,513	101,879,476	103,067,682
Less: work done by contractors	[1]	[1]	[1]	*970,224*
Net Totals, Steam Railways	149,988,993	178,275,622	214,888,606	212,856,009
Electric Railways—				
Maintenance of way and structures	2,831,429	3,570,773	3.955,970	4,271,868
Maintenance of equipment	5.990,038	7,940,274	8,868,565	10,271,410
Less: work done and materials supplied by contractors	*80,215*	*295,226*	*196,057*	*574,209*
Net Totals, Electric Railways	8.741,252	11,215,821	12,628,478	13,969,069
Telegraph maintenance	718,007	676,917	804,831	858,405
Telephone maintenance, additions and extensions	14,805,097	14,987,263	16,468,760	18,070,846
Less: capital expenditures carried out by contractors	[1]	[1]	[1]	*3,041,810*
Net Totals, Telegraph and Telephone.	15,523,104	15,664,180	17,273,591	15,887,441
Grand Totals	**174,253,349**	**205,155,623**	**244,790,675**	**242,712,519**

[1] Not available.

Statistics of Construction.*—A census of construction was made by the Dominion Bureau of Statistics for 1934, but the basis of compilation was not standardized until 1935 so that, with the completion of the 1945 figures, comparable statistics are now available covering the years 1935-45. Returns are received from general trade and subcontractors, municipalities, the Harbours Board, and Dominion and Provincial Government departments. The figures cover alterations, maintenance and repairs, as well as new construction. Summary statistics are given in Tables **15, 16** and **17.**

No relationship exists between the total value of construction as shown in these tables, and the value of contracts awarded as indicated in Tables **8** and **9** of Section 3, pp. 591-592. In the latter case all values are included as soon as awards are made, irrespective of whether the contract is completed or even begun in that year, whereas, the following tables cover construction work carried on and actually performed in the calendar year.

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* Revised under the direction of W. H. Losee, Director, Census of Industry and Merchandising Division, Dominion Bureau of Statistics, by F. J. Tanner, Chief, Construction Statistics Section.

15.—Principal Statistics of the Construction Industry, 1942-45

Note.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1940 edition.

Item		1942	1943	1944	1945
Firms reporting	No.	13,754	12,600	16,121	19,025
Salaried employees	"	26,596	25,015	26,767	30,646
Salaries paid	$	43,871,755	43,726,277	44,285,139	52,296,053
Wage-earning employees (average)	No.	148,671	130,285	97,125	115,884
Wages paid	$	218,171,716	207,707,516	153,418,845	181,695,401
Total employees	No.	175,267	155,300	123,892	146,530
Salaries and wages paid	$	262,043,471	251,433,793	197,703,984	233,991,454
Cost of materials used	$	324,732,380	278,888,384	200,801,042	275,621,996
Value of work performed[1]	$	635,649,570	572,426,551	449,838,059	543,579,833
New construction[1]	$	*490,317,917*	*422,423,651*	*265,819,003*	*320,225,176*
Alterations, maintenance and repairs[1]	$	*145,331,653*	*150,002,900*	*184,019,056*	*223,354,657*
Subcontract work performed	$	124,023,873	97,800,007	74,214,349	92,817,170
New construction	$	*110,162,964*	*84,084,603*	*57,851,459*	*71,872,900*
Alterations, maintenance and repairs	$	*13,860,909*	*13,715,404*	*16,362,890*	*20,944,270*

[1] Includes subcontract work indicated in the lower part of the table.

16.—Value of Work Performed by the Construction Industry, by Provinces, Groups and Types of Construction, 1942-45

Province, Group or Type	1942	1943	1944	1945
	$	$	$	$
Province				
Prince Edward Island	1,468.348	1,645,660	1,961,471	1,876,857
Nova Scotia	54,259,398	40,667,401	29,832,726	29,324,769
New Brunswick	14,194,800	12,006,608	13,657,043	14,373,424
Quebec	205,400,748	159,875,335	131,064,232	150,166,258
Ontario	217,829,022	216,715,281	165,395,169	216,545,127
Manitoba	22,091,947	20,190,673	19,357,321	28,382,523
Saskatchewan	15,602,922	11,128,058	12,423,241	17,482,076
Alberta	33,389,725	25,142,003	27,569,213	32,013,693
British Columbia and Yukon	71,412,660	85,055,532	48,577,643	53,415,106
Totals	**635,649,570**	**572,426,551**	**449,838,059**	**543,579,833**
Group				
Contractors, builders, etc	575,215,433	510,998,908	381,216,381	458,869,189
Municipalities	19,608,132	19,946,581	23,782,546	26,347,676
Harbour Commissions	1,454,960	1,139,984	1,304,594	1,646,552
Provincial Government Departments	33,157,163	34,109,733	36,520,088	43,135,675
Dominion Government Departments	6,213,882	6,231,345	7,014,450	13,580,741
Type of Work Performed				
Building construction	351,774,680	301,884,888	220,299,940	288,092,582
Street, highway, power, water, etc., construction	199,432,471	186,913,006	142,431,180	146,216,938
Harbour and river construction	17,846,591	16,614,824	10,692,622	12,690,727
Trade construction	66,595,828	67,013,833	76,414,317	96,579,586

The value of work performed by the construction industry in 1945 amounted to $543,579,833 as compared with $449,838,059 in the preceding year, an increase of 20·8 p.c.

The value of building construction increased from $220,299,940 in 1944 to $288,092,582 in 1945. The construction of industrial buildings increased from $71,131,759 to $82,800,022 while the construction of armouries, barracks, hangars, etc., was reduced from $15,001,136 to $6,445,275. On the other hand, the value of residential building advanced from $83,927,360 to $125,524,346, institutional from $21,005,720 to $30,449,556 and commercial from $29,233,965 to $42,873,383. Construction work involving engineering, harbours, rivers, etc., increased from $153,123,802 in 1944, to $158,907,665 in 1945.

In the industry as a whole, employment was provided for a total of 146,530 persons in 1945, recording an increase of 22,638 over the total for the preceding year, while the aggregate of salaries and wages at $233,991,454 was $36,287,470 higher. The cost of materials used in 1945 was $275,621,996 an increase in expenditure for this purpose of $74,820,954.

In 1945, reports received numbered 19,025 as compared with 16,121 in 1944. A good part of the increase was recorded in the number of reports received from owner-builders due, in all likelihood, to the number of persons, desperately in need of housing accommodation, who erected their own homes because they were unable to obtain the services of a contractor. These statistics are included in the tables showing the operations of general contractors, trade contractors and subcontractors. Although the increase in the number of reports was considerable, the comparatively small extent of their operations does not appreciably affect other totals.

17.—Principal Statistics of the Construction Industry, by Provinces and Groups, 1945

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Province or Group	Employees	Salaries and Wages	Cost of Materials	Values of Work Performed		
				New Construction	Alterations and Repairs	Total
	No.	$	$	$	$	$
Province						
Prince Edward Island	430	722,893	937,874	1,340,801	536,056	1,876,857
Nova Scotia	13,083	13,969,246	13,370,748	13,098,086	16,226,683	29,324,769
New Brunswick	4,404	6,785,662	6,337,987	7,085,817	7,287,607	14,373,424
Quebec	41,895	65,936,469	77,366,558	92,699,155	57,467,103	150,166,258
Ontario	54,807	93,067,120	112,343,844	121,835,987	94,709,140	216,545,127
Manitoba	5,862	10,086,904	14,616,889	17,087,391	11,295,132	28,382,523
Saskatchewan	4,078	6,502,184	8,833,138	10,312,309	7,169,767	17,482,076
Alberta	7,254	11,522,354	14,998,591	21,722,386	10,291,307	32,013,693
British Columbia	14,717	25,398,622	26,816,367	35,043,244	18,371,862	53,415,106
Totals	**146,530**	**233,991,454**	**275,621,996**	**320,225,176**	**223,354,657**	**543,579,833**
Group						
Contractors, builders, etc.	110,405	185,494,940	249,226,381	296,838,126	162,031,063	458,869,189
Municipalities	10,804	15,995,980	8,636,585	9,247,453	17,100,223	26,347,676
Harbour Commissions	681	1,053,916	456,336	142,110	1,504,442	1,646,552
Provincial Govt. Depts.	19,259	23,335,976	12,033,891	10,975,651	32,160,024	43,135,675
Dominion Govt. Depts.	5,381	8,110,642	5,268,803	3,021,836	10,558,905	13,580,741

Table **18** classifies the various types of construction carried out in 1945. The item "Trade Construction" covers such items as bricklaying, carpentry, plumbing, heating, electrical work, etc., reported by contractors who confine themselves to a specific type of work. Details by provinces and more complete information regarding the industry will be found in the reports of the Bureau of Statistics on the construction industry.

18.—Values of New and Other Construction Classified by Type, 1945

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Type of Construction	New Construction	Repairs, Alterations and Maintenance	Total Value
	$	$	$
Building Construction—			
Dwellings and apartments	104,987,189	20,537,157	125,524,346
Hotels, clubs and restaurants	1,488,541	1,840,019	3,328,560
Churches, hospitals, etc	21,953,667	8,495,889	30,449,556
Office buildings, stores, theatres and amusement halls	8,848,016	16,035,194	24,883,210
Grain elevators, factories, warehouses, farm and mine buildings	57,382,067	33,598,969	90,981,036
Garages and service stations	5,819,350	2,370,284	8,189,634
Radio stations	370,534	158,534	529,068
Armouries	1,521,056	936,154	2,457,210
Aeroplane hangars	290,987	222,203	513,190
All other building construction	352,330	884,442	1,236,772
Totals, Building Construction	**203,013,737**	**85,078,845**	**288,092,582**
Street, Highway, Power, Water, etc., Construction—			
Streets, highways and parks	33,512,463	45,924,210	79,436,673
Bridges, culverts, subways, etc	5,198,135	4,874,780	10,072,915
Water, sewage and drainage systems	11,318,473	4,830,929	16,149,402
Electric power plants, including dams, reservoirs, transmission lines and underground conduit	17,852,808	9,007,649	26,860,457
Railway construction, steam and electric	1,555,264	1,196,882	2,752,146
Aerodromes or landing fields	3,282,672	761,218	4,043,890
All other construction, including installation of boilers and machinery	3,196,341	3,705,114	6,901,455
Totals, Street, etc., Construction	**75,916,156**	**70,300,782**	**146,216,938**
Harbour and River Construction	**7,799,305**	**4,891,422**	**12,690,727**
Trade Construction	**33,495,978**	**63,083,608**	**96,579,586**
Grand Totals	**320,225,176**	**223,354,657**	**543,579,833**

CHAPTER XX.—LABOUR*

CONSPECTUS

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Section 1.—The Government in Relation to Labour

Subsection 1.—The Dominion Department of Labour

The Department of Labour of the Dominion Government was established in 1900 by the Conciliation Act which provided machinery to aid in preventing and settling labour disputes, and required the Department to collect, compile and publish statistical and other information. The Department assumed, too, the administration of the Fair Wages Policy which was adopted in the same year for the protection of workmen employed in the execution of Dominion Government contracts and on works aided by grants from public funds.

At the present time, in addition to the statutory duty of disseminating information concerning labour and industrial matters, the Minister is responsible for the administration of certain statutes: Conciliation and Labour Act; Fair Wages and Hours of Labour Act, 1935; Vocational Training Co-ordination Act, 1942; Unemployment Insurance Act, 1940; Reinstatement in Civil Employment Act, 1946; and Government Annuities Act. The Fair Wages Policy is incorporated, with respect to public and subsidized works, in the Fair Wages and Hours of Labour Act, but with respect to equipment and supplies for Government use it is embodied in Orders in Council. The Industrial Disputes Investigation Act, enacted first in 1907, was suspended by the Wartime Labour Relations Regulations.

Fair Wages Policy.—Wages and hours for work on contracts for the manufacture of equipment and supplies for the Dominion Government and for construction were governed for some years by a Resolution of the House of Commons (1900) which was later incorporated in an Order in Council and amended from time to time. Contracts for construction are now regulated under the Fair Wages and Hours of Labour Act, 1935 and, to some extent, by an Order in Council of June 7, 1922, as amended Apr. 9, 1924. Hours on such work are limited to eight per day and

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* Except as otherwise indicated, the material in this Chapter has been prepared or revised under the direction of A. MacNamara, C.M.G., Deputy Minister of Labour, Ottawa.

44 per week except in an emergency or when declared exempt by Order in Council; wages to be paid are those current for the type of work in the district concerned or, if there are no current rates, fair and reasonable ones are determined by the Minister.

Wages and hours for work on contracts for equipment and supplies are regulated by the Order in Council of 1922 as amended on Dec. 31, 1934, and on Oct. 4, 1941. The hours on such work must be those fixed by the custom of the trade in the district where the work is performed, or fair and reasonable hours. The wages must be current, or fair and reasonable and, for men and women over 18 years of age, may not in any case be less than 35 cents and 25 cents per hour, respectively. Lower minimum rates are fixed for workers under 18 years of age and for learners. Where minimum rates fixed by provincial authority are higher than these rates the provincial rates apply. In both construction and supplies contracts, the term "current wages" and, in the latter contracts, the term "hours fixed by the custom of the trade", mean the standard conditions fixed by agreement between employers and unions or, failing agreements, the actual conditions prevailing.

Wartime Labour Regulations.—The Wartime Labour Relations Regulations (P.C. 1003) of Feb. 17, 1944, were designed to facilitate collective bargaining and the settlement of labour disputes in order to stimulate the production of war materials. The Regulations applied to transport and communication agencies extending beyond the bounds of one province and, by authority of the War Measures Act, to certain specified industries deemed essential to the prosecution of the War or to the life of the community. In addition, if the Legislature of a province so enacted, the Regulations were applied to other industries within its borders. This action was taken in British Columbia, Manitoba, Ontario, New Brunswick and Nova Scotia.

Of the wartime regulations made under the authority of the War Measures Act, 1917, and continued under the National Emergency Transitional Powers Act, 1945, the Wages Control Order was relaxed by stages and on Nov. 28, 1946, it was rescinded; the Selective Service Regulations for the control of manpower were repealed gradually, the last of such controls being removed on Apr. 1, 1947. The Wartime Labour Relations Regulations, 1944 (P.C. 1003) would, without further legislation, lapse on May 15, 1947, with respect to those labour relations which fall within provincial jurisdiction. With respect to transport and communication agencies and any other industries in the Dominion field, they may be continued provisionally until replaced by a permanent statute.

The National Labour Relations Board administers the Regulations in respect to war industries with the assistance of Provincial Boards, except in Alberta and Prince Edward Island.

By the Regulations, employers are required to negotiate with trade unions or employees' associations comprising a majority of all their employees or of those in an appropriate unit. Discrimination against trade union members is an offence. Disputes concerning union membership or representation are determined by the Labour Relations Board. Disputes arising out of an agreement are subject to compulsory arbitration if the agreement does not set out appropriate procedure. Disputes over the terms to be included in a collective agreement are referred to a Conciliation Officer or Board, and strikes and lockouts are prohibited until 14 days after the Board has reported to the Minister.

Up to Mar. 1, 1947, the National Board had certified representatives in 278 cases, rejecting 61. The Provincial Boards had issued 3,625 certificates and rejected 574. Between Mar. 20, 1944, and Feb. 28, 1947, of 424 disputes in which Government conciliation services were used, 163 were settled by Conciliation Officers and 103 by Conciliation Boards. In 65 cases no agreement was reached following a Board's report. Other cases are still pending.

Subsection 2.—Provincial Labour Departments

Labour legislation in Canada is, for the most part, a matter for the Provincial Legislatures since it usually governs, in some respect, the contracts of service between employer and employee or the contracts between members of a trade union which form the basis of the union, or it regulates conditions in local work-places. The right to contract is a civil right and the British North America Act, which distributes legislative powers between the Parliament of Canada and the Provincial Legislatures, grants to the provinces power to enact laws in relation to "civil rights" and, with certain exceptions, "local works and undertakings".

In each province, except Prince Edward Island, a special Department or Bureau is charged with the administration of labour laws. In Alberta the Board of Industrial Relations under the Minister of Trade and Industry administers statutes concerning wages, hours and labour welfare, and the Department of Public Works has charge of factory legislation. Other provinces have Departments of Labour. Legislation for the protection of miners is administered by Departments dealing with mines.

Factory legislation in eight provinces, and shops legislation in several provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Other labour statutes in most provinces include minimum-wage legislation and maximum-hours laws, laws for the settlement of industrial disputes, legislation to ensure freedom of association and promote collective bargaining, and laws to provide for apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Acts in Alberta, Saskatchewan, Ontario, New Brunswick and Nova Scotia, and the Fair Wage Act in Manitoba enable the wages and hours of work agreed upon by representatives of employers and employed to be made legal throughout the industry concerned. The Quebec Collective Agreement Act permits agreements between employers and trade unions to be made binding on all in the industry. Workmen's compensation laws in all provinces, except Prince Edward Island, are administered by independent boards.

For information regarding individual Provincial Departments of Labour, reference should be made to the annual reports of the Departments concerned or to the Deputy Ministers of Labour of the Provincial Governments.

Subsection 3.—Provincial Labour Legislation in 1946

Summary.—During the Provincial Legislative Sessions of 1946, a number of important changes were made in existing legislation; also in New Brunswick a new Factories Act and in British Columbia a Holidays with Pay Act was passed.

The school-leaving age was raised to 16 for New Brunswick cities and towns, and in Nova Scotia the causes for exemption from school attendance were cut down and workmen's compensation benefits provided for a child up to the age of 18 for education. A minimum age of 14 was established for New Brunswick shops, hotels, restaurants and places of amusement, and in Saskatchewan the minimum for factories was raised to 16 years.

Maximum hours of work were reduced in British Columbia from 48 to 44 in a week; in both Quebec and Ontario the Minimum Wage Board was authorized to fix special hourly rates for overtime. In Nova Scotia maximum hours and minimum wages may now be established under the Industrial Standards Act for construction jobs in any part of the Province, and in Manitoba the Government was authorized to designate any industry in which hours and wages may be regulated by an Order in Council based on agreement between substantial proportions of the employers and workers.

Holidays with pay may be required in Quebec under the Collective Agreement Act and the Minimum Wage Act. An Order to this effect has been made under the latter Act. Ontario made provision for a proportionate holiday after less than a year's employment.

Conditions for workmen's compensation were made more liberal in British Columbia and workers' contributions to the cost of medical aid were discontinued.

In Ontario the Dominion Labour Relations Regulations are to continue in effect after their lapse under Dominion authority. In Saskatchewan changes were made in the Trade Union Act to make its original purpose more effective.

Improved conditions are to be provided for coal miners in British Columbia and for factory workers in New Brunswick.

Nova Scotia.—Under the *Workmen's Compensation Act*, the maximum payable for funeral expenses was raised from $100 to $150. Children's benefits were made payable up to the age of 18 to enable education to be continued, and the provision for compensation for silicosis was extended to any industry where silica may be inhaled.

The *Coal Mines Regulation Act* was amended to add a qualified electrical engineer to the examining board, to set out new qualifications for electricians', coal miners' and electrical machine operators' certificates, and to make more stringent rules for the use of explosives underground.

The *Industrial Standards Act*, previously applying only to construction in Halifax and Dartmouth, was extended to any other city or area determined by the Governor in Council.

School attendance is now required of a child until the end of the school year in which he attains the school-leaving age (16 in urban and 14 in rural districts). A child is no longer exempt on the ground of poverty or on the ground that, being 12 years of age or over, he has passed Grade 9 or its equivalent.

New Brunswick.—The revised *Factories Act* applies not only to manufacturing, dry-cleaning establishments, and laundries, but in some respects to hotels, restaurants, shops, places of amusement and office buildings. The minimum age of 14 years for factories now applies to all the above establishments unless with permission from the Minister of Labour.

An employer may not permit a worker, other than one on a shift of eight hours or less, to work for more than six hours without an interval for food and rest. Seats must be provided for all factory workers and not only for women. New rules require provision of toilet rooms, safe drinking water and, if the Minister considers it necessary, properly equipped wash-rooms and accommodation for street clothing and work-clothes. The Minister may direct the provision of a satisfactory eating and rest room without charge to the workers. Safety equipment required to be worn must be provided and paid for by the employer.

The rules are more stringent as to reporting accidents, and provision is made for appointment of an accident prevention officer. New sections provide that, on the Minister's order, the employer must forbid food to be taken into a room where manufacturing is being carried on, that an employer must not allow a workman to enter a tank, chamber, pit, pipe, flue or other confined space unless there is means of easy egress and unless the place has been ventilated and tested and the workman is wearing suitable apparatus, and must not permit an employee to enter a coal, sulphur or grain bunker or like dangerous structure without the prescribed safety equipment. Where there are harmful materials or gases or extremes of temperature or humidity, shower baths, wash basins and sufficient hot and cold water must be provided. If heat, light, or ventilation is unsatisfactory, or injurious conditions obtain, the Inspector may order remedial measures, and if they are not taken within 30 days the Minister may take what action he considers necessary.

The *Stationary Engineers Act, 1946*, reproduces provisions made in 1937 and sets forth qualifications required for licences to operate boilers and pressure vessels, making special provision for war veterans and merchant seamen.

The minimum school-leaving age was raised to 16 but the age of 14 may be retained by the ratepayers of any school district except cities and incorporated towns with school boards appointed in part by the town council and in part by the Governor in Council. Where the age is 14, a child may, as formerly, be exempted if he has passed Grade 8; where the age is 16, if he has passed Grade 11.

Quebec.—Changes in the *Labour Relations Act* increase from three to five, the members of the Labour Relations Board and authorize the Board to prescribe the necessary conditions of membership in an association to enable it to be regarded as representative of employees or of employers.

To the wages, hours, and apprenticeship provisions of an agreement, which may be made generally binding under the Collective Agreement Act, were added the provisions concerning holidays with pay. A joint committee was authorized which may give financial aid to any apprenticeship committee incorporated under the Apprenticeship Assistance Act.

The Minimum Wage Board was empowered to determine overtime rates for hourly-rated employees and to provide for holidays with pay.

Ontario.—Changes in the *Minimum Wage Act* permit minimum hourly rates to be fixed for overtime work and for work of less than 40 hours in a week.

Under the *Hours of Work and Vacations with Pay Act*, regulations were authorized to prescribe the period during which working hours must fall and to provide for paying a proportionate sum in lieu of a holiday to a worker employed for less than a year.

The *Fire Departments Act* now permits a municipal council to adopt, as alternative to a two- or three-platoon system, any system of hours or platoons, provided that, except in serious emergency, the hours of work or on duty do not exceed 72 in a week.

The *Labour Relations Board Act* enables the Government to apply the regulations under the Act to all employees within provincial jurisdiction when the Dominion Wartime Labour Relations Regulations cease to have effect.

The *Apprenticeship Act* now permits employment without a contract of apprenticeship during a probationary period of three months.

Manitoba.—The *Fair Wage Act* was amended to empower the Government to bring any business or undertaking, except agriculture, within Part II of the Act. This Part, like the Industrial Standards Acts in other provinces, permits minimum wages and maximum hours of work to be fixed by Order in Council for a particular industry if the conditions have been agreed upon by a sufficient number of the employers and employees concerned.

Saskatchewan.—The *Trade Union Act, 1944*, was amended to stipulate that where a member of a union is dismissed and the union alleges that he was discharged for union activities, the allegation shall be presumed to be true unless the contrary is proved. To determine which union represents a majority in an appropriate bargaining unit, the Labour Relations Board may order a secret ballot and must do so on application of any union which has, within the past six months, been indicated as bargaining representative by 25 p.c. or more of the workers in any appropriate unit. The Board may refuse to order a vote if satisfied that another union has a majority or if, within the past six months, it has taken a vote in the same unit on the same union's application. A collective agreement must remain in force for one year and thereafter from year to year, but either party may give notice of termination or revision not less than 30 nor more than 60 days before the expiry date, and within that period any union claiming a majority may apply to the Board to have its claim substantiated.

Changes in the *Workmen's Compensation (Accident Fund) Act* bring telephone operators within its scope, and add to the list of diseases for which compensation may be paid. Amendments in the *Workmen's Compensation Act, 1911*, under which the individual employer is liable for compensation and which applies to certain classes of railway workers not covered by the *(Accident Fund) Act*, stipulate that a workman's injury or death must be presumed to have arisen out of and in the course of employment whether or not he assumed any risk or acted contrary to the employer's instructions, and the fact that he did so is not to be a defence under the Act. Where a workman accepts an advance on account of compensation, he is not thereby debarred from proceeding independently of the Act against the employer.

The minimum age of employment in factories was raised to 16 years from 14 for boys and 15 for girls, but in the revised *Child Welfare Act* the age under which employment is forbidden between 10 p.m. and 6 a.m. is lowered from 16 to 13 years.

Village councils may pass by-laws, subject to the Child Welfare Act, fixing the age and conditions under which a child under 16 may be employed in a billiard-room or bowling alley.

Alberta.—The *Alberta Bill of Rights Act*,* which will not be proclaimed until its validity has been determined by the Courts, sets out certain rights of citizenship. These include: for every citizen between the ages of 19 and 60 years opportunity to engage in gainful employment or, if such employment is not available, a social security pension of not less than $600 a year on the basis of the 1945 price level; for every citizen under 19 the necessities of life adequate for health and physical well-being, free public- and high-school education and opportunity for further training if aptitude and ability are shown, and free medical, surgical, hospital, and dental care; for every citizen on retirement at the age of 60, a pension of such amount as may be authorized, but not less than the current social security pension, and medical benefits; and for the disabled, a social-security pension and medical benefits.

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* Since this material was prepared this legislation has been disallowed by the Judicial Committee of the Imperial Privy Council to which body appeal was carried.

British Columbia.—Amendments in the *Workmen's Compensation Act* provide that where disability lasts more than six days (instead of 14, as formerly) compensation shall be paid from the first day; abolish workers' contributions to the cost of medical aid; authorize the Workmen's Compensation Board to provide for replacement and repair of dentures, eye-glasses, and artificial appliances, including artificial members, broken in the course of employment; and permit the Board to bring under the Act industries not previously covered. Additional medical aid not furnished under the Canada Shipping Act may be given to a master, mate, engineer, seaman, steward, fireman or person employed on a vessel where he is entitled under the Canada Shipping Act to certain medical aid from the Sick Mariners' Fund.

From July 1, 1946, the maximum weekly hours under the *Hours of Work Act*, are reduced from 48 to 44, except under special conditions. The Act applies to mines, factories, shipyards, lumbering, construction, road transport, shops, bakeries, hotels, restaurants and operation of elevators.

In industries to which the *Male Minimum Wage Act* applies, that is, all except agriculture and domestic service, the Board of Industrial Relations is given power to limit working hours of men, an authority it already had with regard to women, under the Female Minimum Wage Act. New provisions in both Minimum Wage Acts enable the Board, where it has granted permission for the working hours of any employee to exceed the ordinary statutory limit, to fix a minimum overtime rate.

The *Annual Holidays Act*, in effect since July 1, 1946, provides one week's holiday with pay for all employees who work 280 days or more in a year in any industry, trade or occupation, except agriculture and domestic service.

An amendment to the *Coal Mines Regulation Act*, to come into force on Proclamation, requires that in mines employing more than 15 workers below ground, washing facilities must be provided for all workers, together with accommodation for drying and changing clothes, and that bunk-houses, cook-houses, dining-rooms and wash-houses must be maintained in a clean and sanitary condition.

Yukon and the Northwest Territories.—In the Yukon, the Mining Safety Ordinance, which repeals the Miners' Protection Ordinance, is similar to a 1943 Ordinance of the Northwest Territories. The new law forbids employment of women except in clerical, professional, technical or domestic work, and the employment of boys under 16 years of age in or about a mine, or under 18 below ground. No person under 18 may operate an elevator or power-driven crane in metallurgical works or have charge of a hoisting engine in a mine. Where men are carried, the person in charge of the hoisting machinery must be 21 and experienced. Underground miners and hoist-operators have a maximum work-day of eight hours with provision for overtime in emergencies or to avoid Sunday work. Safety and health regulations similar to those in the provincial mining Acts are included, with special safeguards for persons exposed to silica dust or employed where radio-active minerals are mined, concentrated, or tested.

The Fair Wages Ordinance, in effect June 1, 1946, and applying to retail and wholesale establishments and places where services are sold, provides for fair wages and an eight-hour day and a 44-hour week. Wages must be fair and reasonable and not less than the pay received when the Ordinance was enacted.

An amendment in the Northwest Territories Sanitary Control Ordinance removes the limit of $2.50 a day on the liability of employers operating labour camps of 50 men or more for medical, surgical, and hospital treatment of employees.

Section 2.—Occupations of the Gainfully Occupied Population

Detailed statistics on the occupations of the Canadian people in 1941 will be found in Vol. VII, Census of Canada, 1941. A special review of this subject, based on the 1941 Census figures, appears at pp. 1062-1073 of the 1943-44 Year Book, and further information at pp. 1168-1169 of the 1945 edition.

Section 3.—Employment and Unemployment

Subsection 1.—Employment and Unemployment Statistics of the Census

Detailed statistics of earnings, employment and unemployment as at June 1, 1941, will be found in Vol. VI, Census of Canada, 1941.

Subsection 2.—Employment and Payrolls as Reported by Employers*

Since 1921, the Dominion Bureau of Statistics has made monthly surveys of employment in major industries excluding agriculture, domestic and personal service, and government administration. The broad industrial groups covered by these surveys are: logging, mining, manufacturing, construction, transportation and storage, communications, trade, services (chiefly hotels, restaurants and laundries) and finance. From Apr. 1, 1941, the surveys of employment were extended to cover the current earnings of those in recorded employment and since late in 1944, monthly data on man-hours and hourly earnings have been collected. Enquiries into the sex distribution of the persons on the payrolls of reporting establishments were undertaken on a monthly basis commencing Feb. 1, 1946, replacing the annual and the semi-annual surveys of the past few years.

For practical reasons associated with problems of collection, the current enquiries are limited to firms and branches ordinarily employing 15 persons or over. The restriction results in the inclusion of industrial samples of varying size in the monthly surveys, the variation depending upon the organization of the industry in large or in small units; from the equally important geographical aspect, however, much greater uniformity exists in the provincial coverage of total employees. It is important to note that in all cases the coverage is large.

During 1945, the employment index (based on 1926 as 100) declined from a high of 180·4 in January to a low of 168·7 in October, followed by a contra-seasonal upswing at the end of the year. The downward trend in the earlier months was to be expected during the first stages of reconversion from war to peace; it was in this period that the greatest adjustment took place. In 1946, retooling was completed in many factories, and the majority of service men had been discharged from the Armed Forces. The backlog of demand for civilian goods and services replaced the demand for the articles of war. During 1946, seasonal fluctuations were largely wiped out as a result of post-war changes in the labour market, including conversion to a distribution of employees which was much more similar to that prevailing prior to the outbreak of war than in any immediately preceding year. On the other hand, major strikes in Canada and United States, with their resulting labour tie-ups and material shortages, seriously affected the situation during 1946. The index declined slightly from January to March, and then climbed, except for a slight recession in August, to reach a high point of 185·7 in December. It is interesting to note that it was then only 4·8 points below that reported at the date of highest employment, Dec. 1, 1943.

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* Revised under the direction of H. F. Greenway, Director, Labour and Prices Division, Dominion Bureau of Statistics, by Miss M. E. K. Roughsedge, Chief, Employment Statistics Division.

Relatively greater increases in the non-manufacturing industries than in manufacturing during 1946 resulted in an industrial distribution which differed markedly from that existing during the War, but which compared much more closely with the pre-war distribution. In 1946, employment in manufacturing declined by 8·5 p.c., compared with an increase of 10·4 p.c. in the remaining industries taken as a whole. In the non-manufacturing group, the co-operating employers in construction and maintenance employed an additional 26,000 workers, and in trade, 22,000. Relatively, the greatest gain was in communications, where employment in 1946 increased by 20 p.c. over the preceding year.

The employment of women reached the highest point on record at Oct. 1, 1944, when 261 persons per 1,000 in recorded employment in the eight leading industries in Canada were women. Since that date, the proportion has declined as war industries have closed, and personnel discharged from the Armed Forces. At Oct. 1, 1946, only 222 out of every 1,000 employees reported were women, a ratio slightly lower than that at Oct. 1, 1942, when the first survey of sex distribution was made. The industries such as trade, service and non-durable goods manufacturing, which had shown unusually large gains in the proportion of female workers employed between October, 1942, and October, 1944, reported the greatest declines in the year ended Oct. 1, 1946. The number of women employed in trade and service increased with the greater availability of labour during 1946, the decline in the ratio of females resulting directly from the employment of relatively larger numbers of male workers. When compared with the same date in 1943, the percentage of female workers at Oct. 1, 1946, was lower in each of the main industry groups except communications. The total number of employees reported by the co-operating establishments increased between October, 1945, and October, 1946, by some 99,000 persons; in the same period, the number of female workers declined by 14,000.

During 1946, the Dominion Bureau of Statistics tabulated monthly returns from an average of 16,066 establishments in the eight leading industries, which reported an average of 1,771,481 employees. Similar figures for the previous year were 15,358 firms and branches, with an average of 1,787,751 employees. The index of employment (1926 = 100) was 173·2 in 1946, compared with 175·1 in 1945. The average weekly payroll of the persons in recorded employment in Canada in 1946 was $57,409,624, totalling approximately $2,985,300,000 for the year. The index of payrolls (1941 = 100) declined only from 142·6 in 1945 to 142·4 in 1946, compared with a drop of 1·2 p.c. in employment in the same comparison. The average weekly earnings of the typical individual in recorded employment were $32·38 in 1946, compared with $31·99 in 1945. In 1942, the first full year for which the current record was available, the average was $28·56.

With the exception of a slight recession at June 1, the average weekly earnings increased from month to month during 1946. At December 1, 1946, the average was $2·31 higher than at the same date a year earlier. The per capita weekly earnings in manufacturing as a whole followed a somewhat similar trend, the average increasing by $2·10 in the year under review, in spite of the falling off in the average of hours worked. Thus, during 1946, while the indexes of employment and payrolls in manufacturing declined, the loss was of a greater proportion in employment resulting in an increase in per capita earnings.

At Dec. 1, 1946, the hourly earnings in manufacturing as a whole averaged 74·5 cents, the highest in the 26 months, during which the record of average hourly earnings is available. At the same date, the average hours worked were 43·2 in the week preceding, compared with 44·8 hours in the week of Dec. 1, a year earlier. The average weekly wages of hourly rated wage-earners increased by 7·8 p.c., to $29·89 in the year under review, as compared with $27·72 in 1945. The decline in average hours worked during 1946 was partly the result of the reduction in the length of the standard work week in many establishments and industries, in accordance with industrial agreements signed during the year, but a reduction in the amount of overtime was also a factor, as was the loss of time due to industrial disputes.

The trend towards shorter hours and higher pay in manufacturing was general in all provinces. At Dec. 1, 1946, the hours worked in British Columbia were lower than in any other province, being only 39·3 for the week preceding. The average hourly earnings in that Province were the highest in the Dominion, at 90·1 cents. The mean in New Brunswick, on the other hand, was below the general average of hourly earnings in Canada, standing at 67·8 cents. The hours per week in that Province averaged 45·9 in 1946. The averages in the various provinces depend largely on their respective industrial distributions.

1.—Summary Statistics of Employment and Payrolls Reported Monthly, by Co-operating Establishments, 1945 and 1946

Year, Province, City and Industrial Group	Annual Averages of—		Average Weekly Earnings	Annual Average Index Numbers of—	
	Employees	Weekly Payrolls		Employment	Payrolls
				(June 1, 1941=100)	
1945	No.	$	$		
Province					
Maritime Provinces	137,376	4,177,921	30·42	117·5	163·7
Prince Edward Island	*2,585*	*67,933*	*26·30*	*117·1*	*145·6*
Nova Scotia	*80,582*	*2,543,875*	*31·56*	*114·6*	*160·7*
New Brunswick	*54,209*	*1,566,113*	*28·91*	*122·7*	*169·8*
Quebec	546,163	16,779,893	30·73	116·4	149·6
Ontario	738,348	23,989,229	32·49	110·6	132·6
Prairie Provinces	201,594	6,512,107	32·30	113·6	139·7
Manitoba	*93,007*	*2,979,732*	*32·04*	*113·0*	*136·5*
Saskatchewan	*40,104*	*1,244,260*	*31·02*	*109·4*	*134·5*
Alberta	*68,483*	*2,288,115*	*33·41*	*117·0*	*147·5*
British Columbia	164,270	5,719,804	34·82	129·8	159·8
Canada[1]	**1,787,751**	**57,178,954**	**31·99**	**114·7**	**142·6**
City					
Montreal	267,588	8,548,185	31·95	122·3	153·3
Quebec	31,803	913,423	28·70	132·6	182·5
Toronto	242,790	7,866,232	32·41	120·2	145·0
Ottawa	21,544	609,592	28·30	107·9	132·2
Hamilton	58,072	1,906,245	32·82	108·9	129·8
Windsor	33,318	1,350,745	40·37	105·4	113·1
Winnipeg	60,408	1,744,634	29·38	116·7	135·2
Vancouver	80,177	2,694,522	33·60	156·3	198·5
Totals, Eight Leading Cities	**795,700**	**25,633,578**	**32·22**	**121·9**	**148·4**
Halifax	25,183	750,772	30·42	146·0	193·4
Saint John	13,689	401,217	29·29	130·4	179·4
Sherbrooke	9,155	239,639	26·17	104·7	130·5
Three Rivers	9,986	291,778	29·22	125·1	143·4
Kitchener-Waterloo	16,764	499,328	29·78	112·1	146·8
London	21,032	625,603	29·74	118·2	139·3
Fort William–Port Arthur	13,536	481,536	35·53	96·3	127·9
Regina	10,155	284,833	28·05	122·2	137·1
Saskatoon	6,276	168,021	26·76	126·5	153·6
Calgary	17,853	557,816	31·57	113·4	137·9
Edmonton	17,146	502,720	29·31	126·3	152·3
Victoria	14,194	464,348	32·70	168·7	220·6

For footnote, see end of table, p. 611.

1.—Summary Statistics of Employment and Payrolls Reported Monthly, by Co-operating Establishments, 1945 and 1946—concluded

Year, Province, City and Industrial Group	Annual Averages of—		Average Weekly Earnings	Annual Average Index Numbers of—	
	Employees	Weekly Payrolls		Employment	Payrolls
				(June 1, 1941=100)	
1945	No.	$	$		
Industry					
Manufacturing	1,068,621	34,888,109	32·65	121·2	152·1
Durable goods[2]	*540,620*	*19,299,198*	*35·68*	*126·7*	*161·5*
Non-durable goods	*508,643*	*14,869,999*	*29·24*	*116·5*	*143·5*
Electric light and power	*19,358*	*718,912*	*37·15*	*101·3*	*116·6*
Logging	74,440	1,994,576	26·89	156·2	210·2
Mining	69,173	2,670,924	38·60	82·9	101·6
Communications	31,527	992,680	31·48	121·0	140·8
Transportation	160,885	6,244,615	38·82	126·1	152·4
Construction and maintenance	139,756	4,209,737	30·08	78·5	103·7
Services	51,054	1,014,544	19·87	120·4	149·1
Trade	192,295	5,163,769	26·85	111·1	127·3
Totals, Eight Industries	**1,787,751**	**57,178,954**	**31·99**	**114·7**	**142·6**
Finance	67,549	2,264,338	33·51	112·4	130·7
Grand Totals	**1,855,300**	**59,443,292**	**32·04**	**114·6**	**142·1**
1946					
Province					
Maritime Provinces	132,711	4,030,651	30·37	113·0	156·6
Prince Edward Island	*2,754*	*75,307*	*27·31*	*124·7*	*157·0*
Nova Scotia	*75,917*	*2,331,361*	*30·71*	*107·3*	*145·7*
New Brunswick	*54,040*	*1,623,983*	*30·05*	*121·7*	*175·4*
Quebec	530,837	16,600,642	31·24	113·0	147·1
Ontario	737,990	24,136,597	32·68	110·2	132·7
Prairie Provinces	213,314	7,104,056	33·28	120·9	152·1
Manitoba	*97,370*	*3,222,565*	*33·07*	*118·4*	*147·6*
Saskatchewan	*41,922*	*1,359,697*	*32·41*	*117·0*	*146·1*
Alberta	*74,022*	*2,521,794*	*34·06*	*126·6*	*161·9*
British Columbia	156,629	5,537,678	35·30	123·5	153·7
Canada[1]	**1,771,481**	**57,409,624**	**32·38**	**113·5**	**142·4**
City					
Montreal	262,705	8,394,398	31·92	119·0	148·4
Quebec	24,642	682,654	27·68	102·2	135·0
Toronto	236,028	7,745,903	32·80	115·7	141·2
Ottawa	23,072	656,823	28·45	115·3	142·1
Hamilton	54,436	1,767,141	32·46	101·9	120·5
Windsor	32,734	1,249,029	38·05	103·2	104·4
Winnipeg	63,434	1,929,631	30·40	122·5	146·3
Vancouver	71,568	2,372,500	33·12	138·4	173·5
Totals, Eight Leading Cities	**768,619**	**24,798,079**	**32·26**	**116·9**	**142·0**
Halifax	23,286	679,029	29·17	132·6	169·3
Saint John	13,163	384,352	29·18	125·2	169·1
Sherbrooke	9,590	256,336	26·69	107·0	137·1
Three Rivers	9,442	292,760	30·92	114·2	136·9
Kitchener-Waterloo	17,361	521,223	30·02	116·0	153·0
London	22,875	700,865	30·60	128·2	154·6
Fort William-Port Arthur	10,207	357,528	35·01	72·3	94·6
Regina	10,460	306,303	29·27	115·0	146·4
Saskatoon	7,133	205,431	28·76	143·0	187·0
Calgary	19,124	613,229	32·06	120·6	148·2
Edmonton	18,839	572,542	30·38	136·9	170·5
Victoria	12,596	395,504	31·38	147·5	184·6
Industry					
Manufacturing	977,739	31,809,435	32·51	110·9	138·5
Durable goods[2]	*446,969*	*15,545,476*	*34·76*	*105·2*	*129·9*
Non-durable goods	*508,153*	*15,395,616*	*30·27*	*116·1*	*148·5*
Electric light and power	*22,617*	*868,343*	*38·40*	*117·9*	*139·6*
Logging	81,162	2,345,359	29·03	169·6	246·2
Mining	73,164	2,869,465	39·21	87·6	108·8
Communications	38,096	1,248,227	32·76	146·0	175·7
Transportation	164,496	6,596,133	40·07	130·0	159·3
Construction and Maintenance	166,014	5,250,175	31·53	93·3	128·5
Services	56,600	1,192,932	21·06	130·3	170·5
Trade	214,210	6,097,898	28·45	122·0	147·6
Totals, Eight Industries	**1,771,481**	**57,409,624**	**32·38**	**113·5**	**142·4**
Finance	74,624	2,601,900	34·85	123·9	149·8
Grand Totals	**1,846,105**	**60,011,524**	**32·48**	**113·9**	**142·7**

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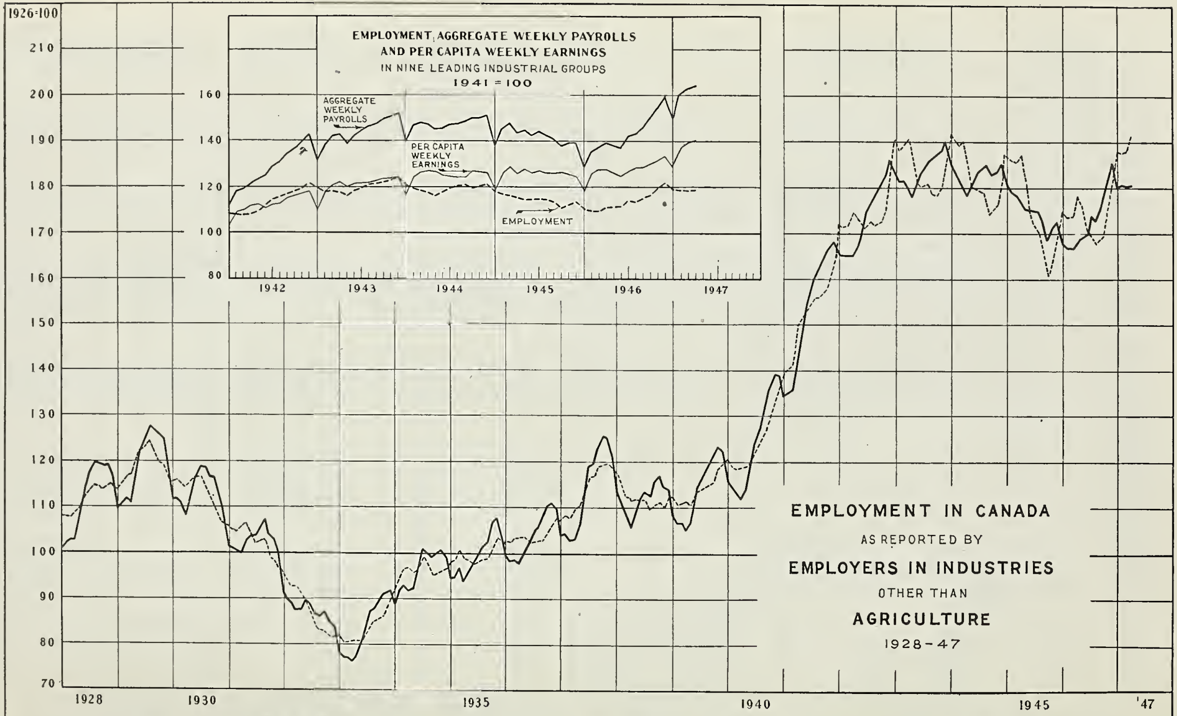
[1] These totals are for eight industries only; finance, the ninth industry, is not divisible by provinces and the totals are given separately in the classification by industry. [2] Includes iron and steel, non-ferrous metals, electrical apparatus, lumber, musical instruments, and clay, glass and stone products. The non-durable group includes the remaining manufacturing industries, with the exception of electric light and power.



EMPLOYMENT IN CANADA
AS REPORTED BY
EMPLOYERS IN INDUSTRIES
OTHER THAN
AGRICULTURE
1928-47

The heavy curve is based upon the number of persons employed at the first day of the month by the firms reporting compared with the average employment they afforded in the calendar year 1926 as 100. The broken curve shows this crude curve corrected for seasonal variation as determined by the experience of the years 1929-1937.

Employment and Payrolls by Economic Areas.—The contraction in employment previously noted in Canada as a whole, was not uniform in all areas during 1946. The trend during this reconversion stage depended largely on the industrial distribution of the individual area. Employment declined in the Maritimes, Quebec and British Columbia; Ontario showed little change as the expansion of civilian industries, restricted during wartime, counterbalanced declines in industries producing munitions. The only region in which the yearly index was higher in 1946 than in 1945 was the Prairie area, in which the pre-war trend towards increased industrial activity continued during the 12 months under review.

When the situation at Dec. 1, 1946, is compared with that indicated one year previously, it will be noted that the index was higher in all areas except the Maritimes, there being increased industrial activity in the latter part of the year in Quebec and British Columbia, in spite of the decline in the yearly index numbers in those areas. Even in the Maritime Provinces, general improvement was noted in the autumn and winter, although the gain was not enough to raise the annual index to the level of the previous year.

The rate curve of aggregate weekly payrolls did not follow completely the trends shown by employment. In most areas in which employment declined, accompanying reductions in payrolls were not so great. At the same time, a more-than-proportional increase in the salaries and wages took place in those areas where employment was on the upswing. Consequently, the average weekly earnings for 1946 compared favourably with those for 1945 and earlier years in all areas, except the Maritimes. In the latter area, the general decline was very slight. The greatest increase was noted in the Prairies, where the annual average per capita weekly earnings increased by 98 cents, to a new high of $33·28 in 1946.

2.—Index Numbers of Employment as Reported by Employers in Economic Areas, by Months, 1945 and 1946, with Yearly Averages since 1921

Note.—These indexes are calculated as at the first day of each month, on the base 1926=100. The relative weights show the proportion of employees reported in each economic area to the total reported by all employers making returns in Canada at Dec. 1, 1945.

Year	Maritime Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
Averages, 1921	**102·4**	**82·2**	**90·6**	**94·0**	**81·1**	**88·8**
Averages, 1922	**97·3**	**81·4**	**92·8**	**92·6**	**82·8**	**89·0**
Averages, 1923	**105·7**	**90·7**	**99·5**	**94·8**	**87·4**	**95·8**
Averages, 1924	**96·6**	**91·3**	**95·5**	**92·1**	**89·4**	**93·4**
Averages, 1925	**97·0**	**91·7**	**95·8**	**92·0**	**93·7**	**93·6**
Averages, 1926[1]	**99·4**	**99·4**	**99·6**	**99·5**	**100·2**	**99·6**
Averages, 1927	**103·7**	**104·0**	**105·6**	**105·3**	**101·1**	**104·6**
Averages, 1928	**106·6**	**108·3**	**113·8**	**117·9**	**106·4**	**111·6**
Averages, 1929	**114·8**	**113·4**	**123·1**	**126·3**	**111·5**	**119·0**
Averages, 1930	**118·3**	**110·3**	**114·6**	**117·1**	**107·9**	**113·4**
Averages, 1931	**108·1**	**100·9**	**101·2**	**111·5**	**95·5**	**102·5**
Averages, 1932	**92·2**	**85·5**	**88·7**	**90·0**	**80·5**	**87·5**
Averages, 1933	**85·3**	**82·0**	**84·2**	**86·2**	**78·0**	**83·4**
Averages, 1934	**101·0**	**91·7**	**101·3**	**90·0**	**90·4**	**96·0**
Averages, 1935	**103·7**	**95·4**	**103·3**	**95·2**	**97·7**	**99·4**
Averates, 1936	**109·4**	**100·7**	**106·7**	**99·3**	**101·1**	**103·7**
Averages, 1937	**121·0**	**115·4**	**118·3**	**99·3**	**106·8**	**114·1**
Averages, 1938	**111·5**	**117·0**	**113·7**	**100·0**	**104·2**	**111·8**
Averages, 1939	**110·5**	**120·8**	**114·3**	**103·2**	**107·5**	**113·9**
Averages, 1940	**122·2**	**127·9**	**129·2**	**109·0**	**113·3**	**124·2**
Averages, 1941	**155·0**	**157·8**	**160·0**	**126·6**	**135·6**	**152·3**
Averages, 1942	**174·2**	**186·2**	**179·4**	**135·6**	**164·8**	**173·7**
Averages, 1943	**182·1**	**200·0**	**185·8**	**141·4**	**190·0**	**184·1**
Averages, 1944	**183·1**	**196·4**	**184·7**	**147·0**	**185·7**	**183·0**

For footnote, see end of table, p. 614.

2.—Index Numbers of Employment as Reported by Employers in Economic Areas, by Months, 1945 and 1946, with Yearly Averages since 1921—concluded

Year and Month	Maritime Provinces	Quebec	Ontario	Prairie Provinces	British Columbia	Canada
1945						
January 1	182·5	191·1	184·2	149·2	173·9	180·4
February 1	179·9	189·1	184·3	145·3	172·0	178·9
March 1	179·9	188·5	184·2	141·2	172·0	178·2
April 1	180·5	185·2	183·0	141·2	173·0	176·9
May 1	183·1	184·9	180·1	139·3	172·4	175·5
June 1	181·0	184·3	178·9	141·8	175·5	175·3
July 1	177·7	181·9	179·8	144·6	180·4	175·4
August 1	176·4	181·6	177·9	147·5	180·1	175·0
September 1	173·2	178·1	175·2	147·2	183·6	172·8
October 1	170·5	175·0	169·6	147·4	174·2	168·7
November 1	178·2	178·8	170·8	150·6	172·5	171·2
December 1	186·7	179·4	173·1	153·6	171·5	173·2
Averages, 1945	**179·1**	**183·2**	**178·4**	**145·7**	**175·1**	**175·1**
Relative weights of employment in economic areas, as at Dec. 1, 1945[2]	8·1	30·3	40·4	12·0	9·2	100·0
1946						
January 1	169·5	171·8	172·2	150·6	163·7	168·2
February 1	165·7	170·4	173·9	145·7	159·8	167·2
March 1	164·4	171·8	173·6	145·3	156·4	167·0
April 1	168·8	172·5	175·5	146·8	160·7	168·9
May 1	167·8	170·3	176·7	149·1	163·9	169·3
June 1	172·9	174·8	178·4	153·3	139·3	169·9
July 1	176·0	175·4	179·6	158·2	162·2	173·6
August 1	168·4	177·5	174·8	161·0	170·4	172·8
September 1	171·9	181·4	176·1	162·0	176·9	175·5
October 1	176·7	184·7	179·0	161·1	179·3	178·1
November 1	179·0	189·1	185·1	163·8	182·2	182·7
December 1	184·5	192·7	188·2	164·7	184·6	185·7
Averages, 1946	**172·1**	**177·7**	**177·8**	**155·1**	**166·6**	**173·2**
Relative weights of employment in economic areas, as at Dec. 1, 1946[2]	7·5	30·3	41·1	11·9	9·2	100·0

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[1] Since the average for the calendar year 1926, including figures up to Dec. 31, 1926, is the base used in computing these indexes, the average index here given for the 12 months Jan. 1–Dec. 1, 1926, generally shows a slight variation from 100. [2] Percentages of Canada total.

Employment and Payrolls by Cities.—The annual average index of employment in Canada's eight leading cities, taken as a whole, declined in 1946 from 1945 by 4·1 p.c. compared with an increase of 1·4 p.c. indicated in the other parts of Canada; the general reduction in the country as a whole, amounted to 1 p.c. The difference is not unexpected in the reconversion period since, during the War, especially pronounced expansion in employment in munitions manufacturing had taken place in the large centres while industrial activity in the smaller areas had, in many cases, been impeded by a shortage of labour during the same period. Further examination shows that among the eight leading cities, the indexes for Ottawa and Winnipeg compared very favourably with those for the preceding year. Proportionally, the recession in 1946 from 1945 was greatest in Quebec, where shipbuilding and munition industries had been very active during the war years. Employment in all eight cities showed decided improvement at the end of the year under review. The index for Windsor, in particular, showed a marked gain over one year earlier, when employment had been seriously affected by industrial disputes.

The trend of aggregate payrolls ran almost parallel to that of employment, all cities, with the exception of Ottawa and Winnipeg, showing a decline from 1945. Little or no change in per capita earnings was noted for Montreal, while increases in the average weekly salaries and wages were noted for Toronto, Ottawa and Winnipeg. With changes in the industrial distribution in Quebec and Windsor, the per capita earnings dropped considerably in 1946; in the case of the latter, important losses were sustained, directly and indirectly as a result of the widespread strikes in 1946.

3.—Index Numbers of Employment as Reported by Employers in Leading Cities, by Months, 1945 and 1946, with Yearly Averages since 1929

Note.—These indexes are calculated as at the first day of each month on the base 1926=100. The relative weights show the proportion of employees reported in each city to the total reported by all employers making returns in Canada at Dec. 1, 1945. Averages for 1921-28, inclusive, are given at p. 772 of the 1938 Year Book.

Year and Month	Montreal	Quebec	Toronto	Ottawa	Hamilton	Windsor	Winnipeg	Vancouver
Averages, 1929....	**115·3**	**124·2**	**121·3**	**120·7**	**128·4**	**153·2**	**112·3**	**109·2**
Averages, 1930....	**111·8**	**125·3**	**116·3**	**123·1**	**113·9**	**128·6**	**107·6**	**109·8**
Averages, 1931....	**102·5**	**122·2**	**107·7**	**119·5**	**101·3**	**88·3**	**97·1**	**104·5**
Averages, 1932....	**88·1**	**101·8**	**95·2**	**99·3**	**83·7**	**78·4**	**86·6**	**88·5**
Averages, 1933....	**81·0**	**95·1**	**87·5**	**90·2**	**74·6**	**75·9**	**80·2**	**83·0**
Averages, 1934....	**84·5**	**95·1**	**93·5**	**99·5**	**84·1**	**93·1**	**82·9**	**87·4**
Averages, 1935....	**87·3**	**96·9**	**97·5**	**102·2**	**92·6**	**115·0**	**87·8**	**96·6**
Averages, 1936....	**92·1**	**95·2**	**101·5**	**106·3**	**98·3**	**121·3**	**92·3**	**103·7**
Averages, 1937....	**101·2**	**100·3**	**107·9**	**107·9**	**112·1**	**146·4**	**95·1**	**110·7**
Averages, 1938....	**103·9**	**107·5**	**107·3**	**105·0**	**106·8**	**138·3**	**93·1**	**109·1**
Averages, 1939....	**106·6**	**119·6**	**109·9**	**108·4**	**103·7**	**133·4**	**93·9**	**111·4**
Averages, 1940....	**114·7**	**126·4**	**123·1**	**119·2**	**124·4**	**161·2**	**101·0**	**120·2**
Averages, 1941....	**142·7**	**167·8**	**152·9**	**149·2**	**159·5**	**227·3**	**122·8**	**146·8**
Averages, 1942....	**167·4**	**223·2**	**180·2**	**161·9**	**186·6**	**282·5**	**132·4**	**205·0**
Averages, 1943....	**186·7**	**271·9**	**195·2**	**168·0**	**186·7**	**305·6**	**139·2**	**245·8**
Averages, 1944....	**187·8**	**268·4**	**197·7**	**166·7**	**180·8**	**291·0**	**145·2**	**242·6**
1945								
January 1..........	177·1	237·5	192·9	174·7	179·8	284·2	149·8	222·9
February 1........	177·2	231·0	191·4	167·7	182·4	280·8	147·3	222·9
March 1...........	176·7	229·6	190·5	164·8	182·8	280·3	140·5	223·0
April 1............	177·1	230·8	189·4	163·7	183·3	277·2	139·9	223·9
May 1.............	176·7	230·4	188·4	160·7	181·9	273·6	138·3	223·2
June 1.............	175·6	229·1	186·4	159·1	176·7	270·0	139·4	228·1
July 1..............	174·1	227·7	186·8	161·5	177·1	266·9	139·0	232·8
August 1..........	171·8	221·7	180·6	158·8	173·6	267·8	140·1	231·3
September 1......	169·2	210·7	179·8	156·7	168·9	258·4	139·9	229·7
October 1.........	164·5	196·3	173·3	156·2	168·4	162·9	140·8	209·3
November 1......	164·9	189·6	174·7	159·0	169·2	162·2	146·1	207·4
December 1.......	165·7	173·3	177·7	168·0	172·6	123·7	150·4	206·3
Averages, 1945.....	**172·5**	**217·3**	**184·3**	**162·6**	**176·4**	**242·3**	**142·6**	**221·7**
Relative weights by cities, as at Dec. 1, 1945....	14·5	1·4	13·2	1·2	3·2	0·9	3·6	4·3
1946								
January 1..........	158·8	167·1	173·0	168·6	169·1	181·3	147·5	197·5
February 1........	160·0	158·9	174·1	165·2	170·2	228·1	142·0	192·8
March 1...........	161·1	159·4	174·8	167·0	168·9	226·9	141·2	187·1
April 1............	164·0	162·7	177·5	170·4	172·3	255·7	142·7	189·7
May 1.............	166·5	162·8	177·5	171·9	172·8	263·8	144·9	191·7
June 1.............	169·0	164·4	176·8	170·8	173·0	266·7	145·7	179·8
July 1..............	169·9	167·7	176·9	173·1	175·9	241·2	149·9	191·8
August 1..........	168·1	171·5	174·5	175·7	144·7	237·1	151·7	194·0
September 1.......	172·7	172·5	176·4	177·3	141·7	232·6	153·4	201·2
October 1.........	173·2	173·8	178·2	179·9	142·1	229·6	155·6	204·1
November 1......	174·4	175·0	181·5	180·6	172·9	240·7	159·8	210·0
December 1.......	177·9	174·2	187·2	183·7	176·2	244·4	161·9	216·4
Averages, 1946....	**168·0**	**167·5**	**177·4**	**173·7**	**165·0**	**237·3**	**149·7**	**196·3**
Relative weights by cities, as at Dec. 1, 1946....	14·7	1·4	13·1	1·3	3·1	1·8	3·6	4·2

Employment by Industries.—Although the average yearly employment index (1926 = 100) for the eight leading industries in Canada declined from 175·1 in 1945 to 173·2 in 1946, the year-end picture was much more encouraging, the index in all industries showing marked advances at Dec. 1, over the same date in the preceding year. The dominant role now played by manufacturing in the Canadian economy is emphasized by the fact that the drop in employment in this industry was directly responsible for the over-all decline in the average yearly index for all industries. The averages for the remaining major industrial divisions showed appreciable gains over 1945.

Dec. 1, 1943, was the date when the employment index reached its peak. The following is a short synopsis of the employment situation from 1939-1946.

At Dec. 1, 1939, over 52 p.c. of all employees reported by co-operating establishments were engaged in manufacturing industries. With wartime expansion, this proportion increased to 63 p.c., the ratio indicated when recorded employment reached its highest level, at Dec. 1, 1943. At the same date in 1946, the ratio was almost back to its pre-war level, standing at 54 p.c. While employment in both the durable and non-durable manufactured goods sections declined, on the whole, during 1946 as compared with 1945, the recession was particularly marked in the former group, as the change-over from heavy war industries to a peacetime economy continued. Employment in the production of both classes of goods was adversely affected during 1946 by important strikes, those in the lumber, iron and steel, and electrical apparatus industries causing particularly heavy losses. As in the case of most of the non-manufacturing industries, employment in the heavy and the light manufactured goods industries at Dec. 1, was well above the level of a year earlier.

Employment in logging, which had been hard hit by a shortage of workers during the war years, was once more on the ascent to meet the heavy demands for lumber and pulp and paper products. The index for December 1, 1946, was higher than at the same date in any other year since 1937.

Expansion in many branches of mining had also been retarded during the war years, the industry in certain areas having had low priority in obtaining labour. This is the only industry for which the index was lower at Dec. 1, 1946, than at the same period in 1939. At the same time, while 7 p.c. of all persons in recorded employment were so engaged in 1939, only 4 p.c. of the total employees reported in the eight leading industries in 1946, were classed in mining.

Although the trend of employment in the transportation and communications industries was upward in 1946, the gain was most marked in the latter, the index rising from 126·7 at Dec. 1, 1945, to 154·7 at the same date in 1946. Employment in both these industrial divisions was well above that reported in 1943. The trend in the service industries followed a similar pattern, the index in that group being 226·8 at Dec. 1, 1946, compared with 197·4 at the same date in 1943.

Construction, the post-war shock absorber, has been seriously curbed by the shortage of material. In spite of this fact, the co-operating contractors employed an average of 166,014 persons in 1946, compared with 139,756 in the preceding year. At December 1, of the year under review, the index was higher than at the same date for any year since wartime construction was at its peak in 1942; it was also well above its 1939 level.

Employment in trade continued to climb, reaching a new maximum in 1946 when the index of 191·2 p.c. showed an advance of 9·4 p.c. over the preceding year. The recorded employees in this industry averaged 214,210, as compared with 192,295 in 1945. Both retail and wholesale trade showed marked gains. During the war years, the industry employed an increasingly large proportion of women. At Oct. 1, 1944, there were almost as many women as men reported in trade. By Oct. 1, 1946, this ratio had declined to 419 per 1,000 workers of both sexes.

The annual average of aggregate weekly payrolls increased during 1946 in all industries with the exception of manufacturing, in which the loss as compared with 1945 was largely a result of the declines in employment in the higher-paying durable goods section, and the retarding influence of strikes. Even in manufacturing the decline in the average earnings was slight, amounting only to 15 cents per person per week. Logging showed the largest gain in per capita weekly earnings, these increasing from an average of $26·89 in 1945, to $29·03 in 1946.

4.—Index Numbers of Employment, by Industrial Groups and by Months, 1945 and 1946, with Yearly Averages since 1929

Note.—These indexes are calculated as at the first day of each month, on the base 1926=100. The relative weights show the proportion of employees reported in each industry to the total reported by all employers making returns in Canada at Dec. 1, 1945. Averages for 1921-28, inclusive, are given at p. 773 of the 1938 Year Book.

Year	Manufacturing	Logging	Mining	Communications	Transportation	Construction and Maintenance	Services	Trade	All Industries[1]
Averages, 1929...	**117·1**	**125·8**	**120·1**	**120·6**	**109·7**	**129·7**	**130·3**	**126·2**	**119·0**
Averages, 1930...	**109·0**	**108·0**	**117·8**	**119·8**	**104·6**	**129·8**	**131·6**	**127·7**	**113·4**
Averages, 1931...	**95·3**	**60·1**	**107·7**	**104·7**	**95·8**	**131·4**	**124·7**	**123·6**	**102·5**
Averages, 1932...	**84·4**	**42·6**	**99·2**	**93·5**	**84·7**	**86·0**	**113·6**	**116·1**	**87·5**
Averages, 1933...	**80·9**	**66·5**	**97·5**	**83·9**	**79·0**	**74·6**	**106·7**	**112·1**	**83·4**
Averages, 1934...	**90·2**	**124·7**	**110·8**	**79·1**	**80·3**	**109·3**	**115·1**	**117·9**	**96·0**
Averages, 1935...	**97·1**	**126·9**	**123·3**	**79·8**	**81·2**	**97·8**	**118·2**	**122·1**	**99·4**
Averages, 1936...	**103·4**	**138·7**	**136·5**	**81·0**	**84·1**	**88·2**	**124·5**	**127·5**	**103·7**
Averages, 1937...	**114·4**	**189·3**	**153·2**	**85·4**	**85·2**	**99·5**	**130·2**	**132·1**	**114·1**
Averages, 1938...	**111·0**	**142·8**	**155·9**	**85·0**	**84·4**	**105·4**	**135·2**	**132·6**	**111·8**
Averages, 1939...	**112·3**	**119·1**	**163·8**	**84·4**	**85·6**	**113·0**	**137·4**	**136·6**	**113·9**
Averages, 1940...	**131·3**	**166·9**	**168·4**	**87·2**	**89·7**	**90·7**	**143·2**	**142·9**	**124·2**
Averages, 1941...	**168·4**	**187·8**	**176·6**	**96·7**	**98·9**	**126·6**	**167·5**	**156·5**	**152·3**
Averages, 1942...	**206·5**	**196·5**	**171·3**	**103·7**	**105·5**	**130·3**	**178·8**	**156·1**	**173·7**
Averages, 1943...	**226·2**	**180·4**	**158·5**	**104·5**	**114·4**	**129·8**	**189·8**	**155·1**	**184·1**
Averages, 1944...	**224·5**	**215·8**	**154·5**	**108·6**	**121·2**	**104·6**	**202·2**	**164·2**	**183·0**
1945									
January 1........	212·7	313·0	146·4	110·7	122·3	98·2	201·1	180·8	180·4
February 1......	215·0	312·3	151·5	110·2	118·2	89·9	198·0	169·4	178·9
March 1.........	214·3	309·9	150·7	111·2	117·9	89·2	199·0	167·0	178·2
April 1...........	212·9	267·6	149·5	112·1	120·7	87·0	201·1	172·6	176·9
May 1............	210·6	205·8	145·7	112·6	124·4	98·8	202·4	171·0	175·5
June 1...........	209·0	201·1	144·6	115·5	125·9	103·1	202·4	171·1	175·3
July 1............	207·2	184·6	146·5	118·7	126·3	112·6	208·9	172·0	175·4
August 1.........	204·1	183·2	144·9	121·8	127·8	119·3	211·3	171·4	175·0
September 1.....	198·6	181·4	143·9	123·4	128·3	123·9	213·1	172·2	172·8
October 1.......	188·3	205·2	143·6	123·4	127·3	124·7	209·9	176·5	168·7
November......	186·3	277·1	144·7	125·2	127·4	130·7	210·5	181·7	171·2
December 1.....	184·2	326·8	150·5	126·7	128·0	132·0	211·2	192·3	173·2
Averages, 1945...	**203·6**	**247·3**	**146·9**	**117·6**	**124·5**	**109·1**	**205·7**	**174·8**	**175·1**
Relative weights, by industries, as at Dec. 1, 1945.	54·7	5·5	4·0	1·9	9·4	9·5	3·0	12·0	100·0

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[1] Except agriculture (see p. 608).

4.—Index Numbers of Employment, by Industrial Groups and by Months, 1945 and 1946, with Yearly Averages since 1929—concluded

Year	Manufacturing	Logging	Mining	Communications	Transportation	Construction and Maintenance	Services	Trade	All Industries[1]
1946									
January 1........	179·9	344·4	149·1	127·1	125·2	107·7	207·3	193·6	168·2
February 1......	182·8	343·5	150·8	127·3	122·2	102·4	211·9	178·6	167·2
March 1..........	182·6	339·5	152·9	128·4	121·3	101·3	211·7	179·9	167·0
April 1..........	184·9	303·6	153·8	132·4	124·0	106·0	217·1	184·8	168·9
May 1...........	186·2	223·9	155·9	135·4	127·7	115·2	219·1	186·7	169·3
June 1...........	184·7	193·7	157·5	141·4	126·8	131·1	224·3	187·7	169·9
July 1...........	187·2	197·0	159·5	146·4	128·3	141·7	233·3	191·1	173·6
August 1.........	184·2	188·5	156·6	151·1	129·6	148·1	239·8	190·0	172·8
September 1.....	187·2	193·5	155·7	152·9	131·4	152·3	239·3	192·1	175·5
October 1........	188·4	241·7	154·5	151·9	133·2	152·2	235·1	196·8	178·1
November 1.....	192·8	298·5	156·5	153·6	135·7	151·9	224·9	201·3	182·7
December 1.....	194·2	353·9	159·8	154·7	135·8	145·8	226·8	212·0	185·7
Averages, 1946...	**186·3**	**268·5**	**155·2**	**141·9**	**128·4**	**129·6**	**224·2**	**191·2**	**173·2**
Relative weights, by industries, as at Dec. 1, 1946..	53·7	5·5	3·9	2·2	9·2	9·9	3·0	12·6	100·0

[1] Except agriculture (see p. 608).

Subsection 3.—Labour Force Surveys

During the War, there was a rapid and marked growth of the total labour force of Canada (including the Armed Services) in response to the greatly expanded manpower needs of war industry, agriculture and the Armed Services. It was expected that there would be a gradual reduction in the permanent labour force as the women and students, who entered the labour market during the war emergency, again resumed their normal activities, such as keeping house and attending school. Since the end of the War, however, the retirement of temporary, wartime entrants into the civilian labour force has been counterbalanced by the influx of ex-service personnel.

It would be practically impossible to measure this movement by a census of total coverage apart from the fact that the expense would be too great. Its importance, however, led to the application of the sampling method to the problem. In November, 1945, the Dominion Bureau of Statistics began a series of labour force surveys. These surveys are carried out quarterly and are based on interviews with about 25,000 households chosen by scientific sampling methods in nearly 100 different areas across Canada. Their aim is to provide periodic estimates of the employment characteristics of the civilian non-institutional population of working age. The classification of persons used in the labour force surveys is not based on normal or usual activity, but on current activity or status during the specific weeks covered by the survey.

Every person 14 years of age or over is classified in one of the following groups: (1) working; (2) looking for work; (3) with a job but not at work; (4) non-workers. However, anyone with a dual status, such as a housewife who worked part-time, is counted in whichever one of the two classifications is higher on the above scale. The labour force of Canada is comprised of all those persons who are either employed or are seeking work and those with a job but not at work.

Changes in regional employment conditions since the first survey are summarized in Table 5. It should be noted that these figures are all subject to sampling error.

5.—Summary Statistics Resulting from the Labour Force Surveys, by Regions, November, 1945, to March, 1947

Region and Date of Survey	Employed[1]	Un-employed	Civilian Labour Force	Not in Labour Force	Total Non-Institutional Civilian Population
	No.	No.	No.	No.	No.
Maritime Provinces—					
Nov. 17, 1945	372,000	18,000	390,000	398,000	788,000
Feb. 23, 1946	372,000	27,000	399,000	410,000	809,000
June 1, 1946	414,000	21,000	435,000	396,000	831,000
Aug. 31, 1946	423,000	20,000	443,000	399,000	842,000
Nov. 9, 1946	421,000	20,000	441,000	409,000	850,000
Mar. 1, 1947	411,000	21,000	432,000	426,000	858,000
Quebec—					
Nov. 17, 1945	1,236,000	60,000	1,296,000	1,110,000	2,406,000
Feb. 23, 1946	1,206,000	75,000	1,281,000	1,173,000	2,454,000
June 1, 1946	1,289,000	44,000	1,333,000	1,149,000	2,482,000
Aug. 31, 1946	1,330,000	42,000	1,372,000	1,127,000	2,499,000
Nov. 9, 1946	1,322,000	31,000	1,353,000	1,173,000	2,526,000
Mar. 1, 1947	1,277,000	46,000	1,323,000	1,223,000	2,546,000
Ontario—					
Nov. 17, 1945	1,490,000	53,000	1,543,000	1,278,000	2,821,000
Feb. 23, 1946	1,504,000	56,000	1,560,000	1,335,000	2,895,000
June 1, 1946	1,618,000	33,000	1,651,000	1,308,000	2,959,000
Aug. 31, 1946	1,673,000	36,000	1,709,000	1,285,000	2,994,000
Nov. 9, 1946	1,654,000	34,000	1,688,000	1,363,000	3,051,000
Mar. 1, 1947	1,605,000	40,000	1,645,000	1,427,000	3,072,000
Prairie Provinces—					
Nov. 17, 1945	886,000	23,000	909,000	718,000	1,627,000
Feb. 23, 1946	877,000	34,000	911,000	755,000	1,666,000
June 1, 1946	1,007,000	15,000	1,022,000	707,000	1,729,000
Aug. 31, 1946	1,041,000	11,000	1,052,000	669,000	1,721,000
Nov. 9, 1946	944,000	19,000	963,000	721,000	1,684,000
Mar. 1, 1947	888,000	21,000	909,000	790,000	1,699,000
British Columbia—					
Nov. 17, 1945	342,000	18,000	360,000	331,000	691,000
Feb. 23, 1946	353,000	21,000	374,000	340,000	714,000
June 1, 1946	374,000	13,000	387,000	330,000	717,000
Aug. 31, 1946	393,000	8,000	401,000	335,000	736,000
Nov. 9, 1946	392,000	11,000	403,000	352,000	755,000
Mar. 1, 1947	384,000	13,000	397,000	364,000	761,000
Totals—					
Nov. 17, 1945	**4,326,000**	**172,000**	**4,498,000**	**3,835,000**	**8,333,000**
Feb. 23, 1946	**4,312,000**	**213,000**	**4,525,000**	**4,013,000**	**8,538,000**
June 1, 1946	**4,702,000**	**126,000**	**4,828,000**	**3,890,000**	**8,718,000**
Aug. 31, 1946	**4,860,000**	**117,000**	**4,977,000**	**3,815,000**	**8,792,000**
Nov. 9, 1946	**4,733,000**	**115,000**	**4,848,000**	**4,018,000**	**8,866,000**
Mar. 1, 1947	**4,565,000**	**141,000**	**4,706,000**	**4,230,000**	**8,936,000**

[1] Includes those with jobs but not at work.

Subsection 4.—Unemployment as Reported by Trade Unions

Quarterly statistics on unemployment are compiled and published in the *Labour Gazette* by the Department of Labour. These are based, at the present time, on returns received from about 2,300 local trade union branches, having an aggregate membership of more than 400,000 workers. "Unemployment" means involuntary idleness due to economic causes. Persons engaged in work other than their own trades, or idle because of illness, are not considered as unemployed, while union members retired or in the Armed Forces and members of unions involved in industrial disputes are excluded from the tabulation. As the number of unions making returns varies from one date to another, with consequent variation in the membership upon which the percentages of unemployment are based, it should be understood that the figures for each month have reference only to the reporting organizations.

6.—Percentages of Unemployment in Trade Unions, by Provinces, Half-Yearly, 1933-44 and Quarterly, 1945 and 1946

Note.—For percentages of unemployment as at June 30 and Dec. 31 from 1915 to 1930, see p. 827 of the 1934–35 edition of the Year Book. For monthly data from 1921, see successive issues of the Year Book commencing with the 1922–23 edition. Quarterly figures were first published for 1945.

Month and Year	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
June.................1933	13·8	13·0	26·2	23·3	19·4	14·9	24·5	18·6	21·8
December...........1933	11·2	11·5	23·2	24·9	20·3	17·2	17·6	19·8	21·0
June.................1934	11·4	7·3	22·9	15·9	17·0	12·1	24·8	17·2	18·0
December...........1934	4·7	7·2	24·5	18·7	16·1	13·1	9·0	24·6	18·0
June.................1935	12·2	8·1	21·9	12·0	13·7	9·4	20·1	13·2	15·4
December...........1935	7·8	7·5	20·6	13·4	13·1	11·6	9·6	15·9	14·6
June.................1936	6·7	7·8	19·0	13·3	8·4	6·4	17·2	10·5	13·9
December...........1936	6·8	6·2	20·9	13·8	10·9	12·8	6·4	12·7	14·3
June.................1937	5·9	4·7	15·3	7·6	5·7	7·2	16·6	8·0	10·4
December...........1937	3·3	4·6	16·5	12·9	16·8	10·6	6·7	15·8	13·0
June.................1938	3·6	14·8	17·1	12·4	12·5	9·7	17·8	14·3	13·5
December...........1938	8·4	9·8	21·2	14·5	21·4	11·8	9·5	17·3	16·2
June.................1939	6·3	8·9	15·0	9·7	10·2	6·6	18·2	9·7	11·6
December...........1939	5·3	4·3	16·1	9·7	12·0	10·2	4·9	12·4	11·4
June.................1940	2·4	3·7	12·2	4·9	3·9	3·4	14·6	7·7	7·6
December...........1940	2·6	2·3	11·1	5·9	6·6	6·7	4·8	9·0	7·4
June.................1941	2·0	1·9	6·2	2·0	4·3	1·8	11·5	3·8	4·1
December...........1941	1·0	2·1	5·7	6·0	6·2	4·2	3·8	5·3	5·2
June.................1942	1·3	4·7	4·6	1·6	1·1	0·9	2·6	0·9	2·5
December...........1942	0·3	2·4	1·6	1·0	2·6	1·1	1·7	0·6	1·2
June.................1943	0·3	1·1	1·0	0·4	0·6	0·6	1·1	0·1	0·6
December...........1943	2·9	0·3	0·7	0·5	0·8	0·8	0·9	0·5	0·8
June.................1944	0·1	0·6	0·4	0·2	0·2	0·5	0·2	0·2	0·3
December...........1944	[1]	0·2	0·9	0·4	0·8	0·5	0·7	0·6	0·6
March...............1945	0·5	[1]	1·2	0·6	0·9	0·8	0·8	0·5	0·7
June.................1945	1·2	0·1	0·6	0·7	0·2	0·9	0·3	0·2	0·5
September...........1945	2·0	0·5	2·4	0·5	0·4	0·4	0·3	2·4	1·4
December...........1945	4·6	4·7	1·8	4·0	1·2	1·3	0·9	3·4	3·0
March...............1946	4·0	1·8	1·4	1·7	1·6	2·1	1·0	3·0	1·9
June.................1946	3·6	3·7	1·0	0·8	1·5	0·7	0·4	2·3	1·3
September...........1946	0·9	1·0	1·0	1·0	0·5	0·4	0·5	1·5	1·0
December...........1946	1·5	0·3	1·4	0·9	1·3	1·5	1·4	3·6	1·5

[1] Less than one-tenth of one per cent.

Section 4.—Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all employed persons with the following exceptions: workers in specified industries or occupations, such as agriculture, forestry, fishing, lumbering and logging (unless in an area where the Commission has prescribed that persons employed in lumbering and logging shall be insured; limited at present to the Province of

British Columbia), stevedoring, private domestic service, private-duty nursing, certain director-officers of corporations, workers on monthly or other rates higher than weekly who earn more than $2,400 per year, or on weekly rates who earn $3,120 or more per year and (except by consent of the Commission), employment in a hospital or charitable institution not carried on for gain. All employees paid by the hour, day or on piece rate (including a mileage rate) are insured regardless of amount of earnings, together with all employees who receive $2,400 or less per year under monthly or semi-monthly rates or less than $3,120 per year under a weekly rate. An amendment, effective Oct. 1, 1946, insured employment in transport by water, previously one of the major employments which were excluded.

Unemployment Insurance Fund.—Both employers and employees contribute to the Fund, the total paid by each group being approximately equal. The Dominion Government contributes an amount equal to one-fifth of the combined employer-employee contributions, and also assumes the cost of administration. From July 1, 1941, to Dec. 31, 1946, employers and employees contributed $336,389,719 to the Fund and the Dominion added $67,277,776. Interest and profit on sale of securities amounted to $23,706,803, making a total revenue of $427,374,298.

Benefit first became payable on Jan. 27, 1942, and from that date to Dec. 31, 1946, of the 939,560 initial and renewal claims filed at local offices, 910,953 were forwarded to the regional and district offices for adjudication and 702,308 of these were allowed. Total benefit payments amounted to $70,151,801, leaving a balance of $357,222,497 in the Fund. Reserves of the Fund are invested in Dominion of Canada bonds and, at the end of 1946, the par value of bonds held amounted to $337,632,000.

Contributions and Benefit.—The rates of contribution and benefit are indicated in the following statement.

No benefit is payable during the first nine days of unemployment in a benefit year. After that time, the duration of benefit is related to the employment and contribution history of the employee, the number of days' benefit being equal to one-fifth the number of contribution days during the previous five years, less one-third of the number of benefit days in the previous three years. Insurance benefit is paid as a right on fulfilment of four statutory conditions:—

(1) The payment of not less than thirty weekly (or 180 daily) contributions within two years, while in insured employment. (The two-year period may be extended in certain circumstances.)

(2) Not more than 50 p.c. of contributions within one year preceding the claim being at the lowest rate specified in the Second Schedule.

(3) Proper presentation of claim.

(4) Claimant being at least 16 years of age.

Disqualifications for benefit include: loss of work due to a labour dispute in which the contributor is participating or directly interested; unwillingness to accept suitable employment; being an inmate of any prison or an institution supported out of public funds; refusal to attend a course of instruction or training if directed to do so; residence outside of Canada unless otherwise prescribed. Disqualification of a claimant for a period not exceeding six weeks may be made if an employee is discharged by reason of his own misconduct or leaves the employment voluntarily without just cause.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

Class	Earnings in a Week	Weekly Contributions[1]		Denomination of Stamp[2]	Weekly Benefits[3]	
		By Employee	By Employer		Single Person	Person With One or More Dependents
		$	$	$	$	$
0	Less than 90 cents daily (or under 16 years of age)	[4]	0·27	0·27	[4]	[4]
1	$ 5·40 to $ 7·49	0·12	0·21	0·33	4·20	4·80
2	$ 7·50 to $ 9·59	0·15	0·25	0·40	5·10	6·00
3	$ 9·60 to $11·99	0·18	0·25	0·43	6·00	7·20
4	$12·00 to $14·99	0·21	0·25	0·46	7·20	8·40
5	$15·00 to $19·99	0·24	0·27	0·51	8·10	9·60
6	$20·00 to $25·99	0·30	0·27	0·57	10·20	12·00
7	$26·00 or more	0·36	0·27	0·63	12·30	14·40

[1] The daily rate of contribution in respect of each class is one-sixth of the weekly rates. [2] Unemployment insurance stamps combine both employer and employee contributions. [3] Rates calculated on assumption that the person is in the same class for two years. Daily or weekly benefit for an insured person without dependents is 34 times his average daily or weekly contributions, and 40 times the average employee contribution for married persons mainly or wholly maintaining one or more dependents. The actual daily rate paid is reckoned to the nearest five cents. [4] Workers in this class make no contributions and are not eligible for benefit. They may, however, accumulate benefit rights on the basis of employer contributions.

Statistics of Unemployment Insurance.*—Benefits under the Unemployment Insurance Act first became payable in January, 1942. Except for a period of some nine months following the cessation of hostilities in Europe in the spring of 1945, the monthly figures on claims filed have shown a definite seasonal variation. The typical seasonal movement involves increasing monthly totals in the autumn and winter months and decreasing totals in spring and summer. In 1942, the monthly average of claims filed was 2,448, the range being from 663 to 4,629. The 1943 monthly average was 3,055 with the monthly totals ranging from 1,013 to 6,562. During 1944, the monthly average was 7,575 with a range from 3,106 to 13,770. With the end of the War in August, 1945, the monthly totals in the last half of the year increased sharply, resulting in an average of 24,699 claims per month for 1945, monthly totals of claims ranging from 8,430 to 57,612. In 1946, the monthly average of claims filed was 40,722 while the monthly totals of claims filed ranged from 25,115 to 71,932.

The number of beneficiaries each month has fluctuated with the number of claims filed, subject to a lag of approximately one month. Because of re-employment, or because of the provisions of the Act governing the receipt of benefits, the number of beneficiaries in any month is usually less than the number of claimants. Only when the claims received are falling off sharply, is the number of beneficiaries in a period likely to exceed the number of claimants.

An indication of the extent of recorded unemployment among workers covered by unemployment insurance is given by the numbers signing the live unemployment register in the last week of each month. Those maintaining a live claim for benefit must sign the register once a week, thus certifying that they are unemployed, are capable of and available for work but unable to find suitable employment.

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* Statistics of Unemployment Insurance are compiled and published by the Unemployment Insurance Statistics Section of the Dominion Bureau of Statistics from material supplied by the Unemployment Insurance Commission.

The same seasonality has been evident in these figures as in those of claims filed but the live register supplies a measure of recorded unemployment at a given time whereas claims filed indicate the number of cases of recorded unemployment in a period.

In addition to the monthly material on the operation of the Act, annual tabulations of the persons employed in insurable employment are prepared from returns covering the book exchange at Apr. 1, and annual data are published on benefit years established and benefit years terminated.

The number of persons insured under the Unemployment Insurance Act, shown in Table 7, was assumed to be those working in insurable employment as at Apr. 1, as indicated from returns on those receiving insurance books and contribution cards at that time.

Table **8** presents information on the persons for whom current benefit years were in existence during 1945. A benefit year is established under the Unemployment Insurance Act when an insured person, upon becoming unemployed, submits a claim and proves that at least 180 daily contributions have been made on his behalf during the preceding two years. Because of other provisions of the Act or because he may regain employment before he actually receives benefit, the setting up of a benefit year does not necessarily result in the receipt of benefit payments. When a benefit year is established it means, merely, that the claimant's right to receive benefit at a certain rate at any time during the succeeding twelve months is determined. Thus, although 270,413 persons held benefit years current in 1945, only 181,428 actually drew benefit in that year.

In almost all cases (excluding death, etc.), a benefit year remains in existence either until the authorized benefit rights are exhausted or until twelve months have passed since the date of its establishment, whichever occurs first. Some benefit years established in 1944 were carried over into 1945 so that, although 223,286 persons established benefit years in 1945, a total of 270,413 persons held benefit years currently available in 1945.

The amount of benefit paid, as presented in Table **8**, is secured by multiplying each daily rate of benefit by the number of days paid at that rate on the cards representing benefit years upon which benefit was drawn in 1945.

In Table **9**, the persons with current benefit years in 1945 are classified according to the number of benefit days paid. Table **10** classifies those who drew benefit by the daily rate at which they were paid. The daily rate of benefit is determined by the amount of the daily average contribution paid on behalf of the claimant during the past two years and upon whether or not he has a dependent within the meaning of the Act.

The persons who established benefit years in 1945, those whose benefit years terminated in 1945, with those whose benefit years terminated by exhaustion of rights, shown separately, are classified by age groups in Table **11**. In Table **12** the persons who established benefit years in 1945 and the benefit days paid on those benefit years are presented by industrial group and age.

Table **13** classifies those who established benefit years in 1945 and the days paid on those benefit years by occupation group.

A more detailed analysis of these data, by sex and province, is available in the publication "Annual Report on Current Benefit Years Under the Unemployment Insurance Act" issued by the Dominion Bureau of Statistics.

7.—Persons Insured under the Unemployment Insurance Act, Classified by Industrial Groups and Sex, 1944 and 1945

NOTE.—These figures include only those who exchanged an unemployment insurance book or were issued a book for the first time in April. They therefore represent an estimate of the number employed in insurable employment as at Apr. 1.

Industrial Group	1944		1945	
	Males	Females	Males	Females
	No.	No.	No.	No.
Agriculture	870	530	1,050	490
Forestry, fishing and trapping	440	40	930	40
Mining, Oil and Quarrying—				
Mining	70,320	2,790	61,740	1,850
Oil wells	2,380	270	2,020	230
Quarrying	2,200	60	2,340	60
Totals, Mining, Oil and Quarrying	74,900	3,120	66,100	2,140
Manufactures—				
Vegetable products	62,660	42,040	67,030	42,800
Animal products	58,600	29,240	57,410	30,120
Textiles and textile products	54,250	97,210	55,450	97,990
Wood and paper products	123,060	36,730	127,530	36,470
Iron and its products	382,800	87,510	352,260	71,440
Non-ferrous metal products	64,680	31,650	59,640	28,230
Non-metallic mineral products	24,430	5,660	25,210	6,240
Chemicals and allied products	37,170	23,750	34,600	19,910
Miscellaneous products	15,810	14,040	16,190	14,570
Totals, Manufactures	823,460	367,830	795,320	347,770
Electricity, gas and water production and supply	16,420	2,730	17,440	2,870
Construction	64,040	3,070	67,050	2,480
Transportation and communications	146,880	31,310	166,590	33,780
Trade, wholesale	53,490	25,670	55,440	27,540
Trade, Retail—				
Food	29,830	19,530	31,670	21,430
Other	74,440	110,470	79,350	117,400
Totals, Trade, Retail	104,270	130,000	111,020	138,830
Finance and insurance	19,530	44,400	18,680	46,670
Service—				
Professional	5,650	11,830	6,140	13,140
Public	54,740	47,910	58,150	47,950
Recreational	9,150	5,370	9,490	5,500
Business	5,600	5,270	5,320	5,720
Personal	41,250	67,110	43,000	71,640
Totals, Service	116,390	137,490	122,100	143,950
Unspecified	26,840	16,130	22,710	7,850
Totals, All Industries	**1,447,530**	**762,320**	**1,444,430**	**754,410**

8.—Persons Establishing Benefit Years, Persons with Current Benefit Years, Persons Drawing Benefit, Benefit Days Paid and Total Amount of Benefit Paid, by Provinces, 1945.

Province	Persons Establishing Benefit Years	Persons with Current Benefit Years	Persons Drawing Benefit	Benefit Days Paid	Total Amount of Benefit Paid[1]
	No.	No.	No.	No.	$
Prince Edward Island	839	1,048	755	33,763	63,260
Nova Scotia	10.213	12,079	7,787	394,917	813,990
New Brunswick	3,596	4,760	2.503	88,648	172,800
Quebec	88,702	106,789	76,817	3,867,740	7,651,060
Ontario	64,016	71,648	47,022	2,059,884	4,175,090
Manitoba	13,317	17,489	11,102	526,063	1,018,850
Saskatchewan	4,560	6,142	4,039	179,674	344,890
Alberta	10,058	16,009	9,024	357,847	713,300
British Columbia	27,985	34,449	22,379	866,602	1,809,760
Totals	**223,286**	**270,413**	**181,428**	**8,375,138**	**16,763,000**

[1] Subject to adjustment for errors and omissions in final payments. The total of this column is the summation of the benefit paid to each individual during the calendar year. This is the accepted annual figure. This total exceeds the total of the 12 monthly figures published for the year 1945 by an estimated $2,000,000, due largely to the practice followed in the Treasury Offices of closing their books on the 20th of each month. Thus the total of the monthly figures for 1945 relate actually to the period Dec. 20, 1944, to Dec. 19, 1945.

9.—Persons with Current Benefit Years During 1945, Classified by Number of Benefit Days Paid

Benefit Days Paid	Persons	Days	Benefit Days Paid	Persons	Days	Benefit Days Paid	Persons	Days
	No.	No.		No.	No.		No.	No.
No benefit	88,985	–	75- 79	4,767	368,250	155–159	627	98,400
1- 4	13,968	34,415	80- 84	4,874	399,607	160–164	635	102,862
5- 9	18,111	128,256	85- 89	4,576	397,829	165–169	533	88,879
10–14	13,961	170,780	90- 94	4,304	395,031	170–174	427	73,566
15–19	12,630	212,497	95- 99	3,910	378,514	175–179	298	52,769
20–24	11,159	242,370	100–104	2,273	231,641	180–184	237	43,139
25–29	10,103	270,959	105–109	1,780	190,513	185–189	202	37,769
30–34	9,212	293,791	110–114	1,609	180,274	190–194	163	31,274
35–39	9,215	342,226	115–119	1,363	159,455	195–199	149	29,358
40–44	7,560	319,000	120–124	1,362	166,108	200–204	111	22,213
45–49	6,744	316,932	125–129	1,187	150,654	205–209	100	20,692
50–54	6,527	338,280	130–134	1,084	142,976	210–214	85	18,017
55–59	6,212	352,951	135–139	962	131,792	215–219	89	19,533
60–64	5,765	356,558	140–144	899	127,697	220–224	35	7,526
65–69	5,291	354,205	145–149	689	101,264	225 or over	76	18,924
70–74	4,887	352,420	150–154	677	102,972			
						Totals	**270,413**	**8,375,138**

10.—Persons Drawing Benefit and Benefit Days Paid During 1945, Classified by Daily Rate of Benefit

Daily Rate of Benefit	Persons	Days	Daily Rate of Benefit	Persons	Days	Daily Rate of Benefit	Persons	Days
	No.	No.		No.	No.		No.	No.
Under $0·60	45	1,585	$1·30–$1·39	6,741	287,702	$2·10–$2·19	3,079	143,019
$0·60–$0·69	148	6,434	$1·40–$1·49	4,268	182,291	$2·20–$2·29	4,669	217,140
$0·70–$0·79	316	12,147	$1·50–$1·59	5,186	242,287	$2·30–$2·39	19,098	887,425
$0·80–$0·89	699	30,944	$1·60–$1·69	8,413	495,535	$2·40	44,475	1,898,034
$0·90–$0·99	957	39,055	$1·70–$1·79	10,352	561,126			
$1·00–$1·09	1,805	76,116	$1·80–$1·89	8,583	416,784			
$1·10–$1·19	2,900	125,425	$1·90–$1·99	13,706	665,586	**Totals**	**181,428**	**8,375,138**
$1·20–$1·29	3,448	144,478	$2·00–$2·09	42,540	1,942,025			

11.—Persons Establishing Benefit Years, Benefit Days Paid on Years Established, and Benefit Years Terminated, by Age Groups, 1945

Age Group	Persons Establishing Benefit Years	Days Paid on Benefit Years Established	Benefit Years Terminated	
			Total Terminated	Total Exhausted
	No.	No.	No.	No.
Under 20 years	19,627	455,090	4,448	1,901
20–24 "	35,545	1,156,243	11,166	2,689
25–29 "	26,779	815,637	7,031	1,582
30–34 "	25,328	739,923	6,070	1,367
35–39 "	22,611	662,534	5,101	1,261
40–44 "	20,478	594,719	4,691	1,198
45–49 "	18,105	548,519	4,280	1,080
50–54 "	14,212	453,525	3,567	940
55–59 "	13,101	451,933	3,591	975
60–64 "	11,079	427,814	3,204	1,117
65 years or over	16,130	864,554	5,448	3,147
Not given	291	8,597	173	45
Totals, All Ages	**223,286**	**7,179,088**	**58,770**	**17,302**

12.—Persons Establishing Benefit Years in 1945 and Benefit Days Paid on These Benefit Years, by Industrial Groups and Age Groups

Industrial Group	Persons Establishing Benefit Years			Benefit Days Paid		
	Under 25 Years	25-59 Years	60 Years or Over	Under 25 Years	25-59 Years	60 Years or Over
	No.	No.	No.	No.	No.	No.
Agriculture	285	590	85	5,429	11,472	2,552
Forestry, fishing and trapping	344	788	110	7,085	19,787	4,742
Mining, Oil and Quarrying—						
Mining	1,014	4,133	731	12,514	42,453	29,166
Oil wells	25	124	30	370	3,168	1,395
Quarrying	41	189	42	399	3,815	809
Totals, Mining, Oil and Quarrying	1,080	4,446	803	13,283	49,436	31,370
Manufactures—						
Vegetable products	2,082	3,339	648	47,065	84,980	27,196
Animal products	1,517	2,601	447	31,612	69,996	18,876
Textiles and textile products	2,704	3,158	418	66,538	77,684	16,175
Wood and paper products	2,688	5,485	2,591	50,631	116,721	104,345
Iron and its products	18,846	60,695	7,660	775,413	2,110,356	390,257
Non-ferrous metal products	1,822	4,446	608	56,797	144,074	31,980
Non-metallic mineral products	519	1,050	245	9,236	22,869	7,816
Chemicals and allied products	1,042	2,636	393	27,235	84,601	21,536
Miscellaneous products	2,450	6,622	900	100,895	280,774	57,044
Totals, Manufactures	33,670	90,032	13,910	1,165,422	2,992,055	675,225
Electricity, gas and water production and supply	208	487	143	4,886	16,200	8,531
Construction	3,277	12,681	2,512	61,856	275,683	84,597
Transportation and communications	3,182	7,739	2,772	56,707	186,551	162,298
Trade, wholesale	1,281	2,077	422	22,154	51,582	19,531

12.—Persons Establishing Benefit Years in 1945 and Benefit Days Paid on These Benefit Years, by Industrial Groups and Age Groups—concluded

Industrial Group	Persons Establishing Benefit Years			Benefit Days Paid		
	Under 25 Years	25-59 Years	60 Years or Over	Under 25 Years	25-59 Years	60 Years or Over
	No.	No.	No.	No.	No.	No.
Trade, Retail—						
Food	1,282	1,480	233	26,914	37,090	10,370
Other	3,982	4,631	808	86,292	125,698	34,999
Totals, Retail Trade	5,264	6,111	1,041	113,206	162,788	45,369
Finance and insurance	592	770	291	9,665	20,871	15,790
Service—						
Professional	407	817	258	8,730	19,416	10,389
Public	2,341	7,895	3,057	66,466	287,707	154,533
Recreational	280	538	224	6,257	15,004	9,615
Business	167	352	152	4,186	12,408	8,218
Personal	2,753	5,163	1,404	65,229	143,542	58,941
Totals, Service	5,948	14,765	5,095	150,868	478,077	241,696
Unspecified	41	128	25	772	2,288	667
Totals, All Industries [1]	**222,995**			**7,170,491**		

[1] The total number of persons establishing benefit years was actually 223,286 since 291 persons whose ages were not given are not included in this table; 8,597 benefit days were paid to these 291 persons so that the total benefit days paid was actually 7,179,088.

13.—Persons Establishing Benefit Years in 1945, and Benefit Days Paid on these Benefit Years, by Occupation Groups

Occupation Group	Persons Establishing Benefit Years	Benefit Days Paid	Occupation Group	Persons Establishing Benefit Years	Benefit Days Paid
	No.	No.		No.	No.
Agriculture	674	13,725	Service	21,042	796,688
Fishing	205	4,924	Professional	1,691	56,164
Logging	950	20,367	Public	2,593	111,342
Mining and quarrying	5,018	57,120	Recreational	337	9,318
			Personal	16,421	619,864
Manufacturing and mechanical	78,567	2,912,192	Clerical	23,651	755,465
Construction	18,146	455,177	Labourer	54,411	1,558,570
Transportation and communication	10,123	276,524	Unspecified	196	6,551
Trade	10,110	315,662	**Totals, All Occupations**	**223,286**	**7,179,088**
Finance	193	6,123			

Employment Service.—The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940. The public employment offices, which had functioned under a joint Dominion-Provincial arrangement for more than two decades, were taken over on Aug. 1, 1941, and added to by the Commission in all provinces except Quebec. The Commission also established offices in Quebec and the Provincial Government thereupon reduced the number of its own offices.

14.—Applications for Employment, Positions Offered and Placements Effected by Employment Offices, 1933-45, and by Provinces, 1944 and 1945

NOTE.—For figures by provinces from 1920 to 1943, see corresponding table of previous Year Books, commencing with the 1926 edition. Totals for the years 1920–32 are given at p. 766 of the 1938 edition.

Year and Province	Applications Registered		Vacancies Notified		Placements Effected	
	Men	Women	Men	Women	Men	Women
	No.	No.	No.	No.	No.	No.
Totals, 1933	**531,041**	**143,180**	**282,120**	**87,565**	**278,589**	**73,508**
Totals, 1934	**569,301**	**155,064**	**327,907**	**99,885**	**324,900**	**81,191**
Totals, 1935	**498,466**	**157,955**	**268,300**	**108,274**	**265,212**	**88,590**
Totals, 1936	**515,930**	**164,123**	**241,098**	**114,278**	**237,476**	**93,974**
Totals, 1937	**543,343**	**168,880**	**290,790**	**127,598**	**286,618**	**102,918**
Totals, 1938	**584,727**	**197,937**	**276,851**	**124,390**	**275,338**	**106,957**
Totals, 1939	**579,645**	**208,327**	**271,654**	**130,739**	**270,020**	**114,862**
Totals, 1940	**653,445**	**235,150**	**344,921**	**166,955**	**336,507**	**138,599**
Totals, 1941	**568,695**	**262,767**	**344,796**	**206,908**	**331,997**	**175,766**
Totals, 1942	**1,044,610**	**499,519**	**949,909**	**431,933**	**597,161**	**298,460**
Totals, 1943	**1,681,411**	**1,008,211**	**2,002,153**	**1,034,447**	**1,239,900**	**704,126**
Totals, 1944	**1,583,010**	**902,273**	**1,779,224**	**949,547**	**1,101,854**	**638,063**
Totals, 1945	**1,855,036**	**661,948**	**1,733,362**	**687,886**	**1,095,641**	**397,940**
Prince Edward Island...1944	6,233	3,504	4,635	2,576	3,605	2,129
1945	6,138	3,090	4,376	2,481	3,258	1,959
Nova Scotia...1944	51,185	31,467	59,704	26,524	40,399	21,250
1945	60,900	21,272	57,444	21,974	40,200	14,208
New Brunswick...1944	48,921	24,261	60,929	20,089	35,337	16,444
1945	54,021	18,079	58,454	16,416	34,250	11,022
Quebec...1944	544,220	208,203	577,293	253,829	360,418	146,067
1945	605,568	171,419	526,296	172,637	296,478	83,653
Ontario...1944	558,016	363,432	690,212	426,315	412,768	282,504
1945	678,492	250,823	693,618	302,327	447,995	171,966
Manitoba...1944	65,186	65,594	66,437	57,462	38,937	43,268
1945	84,863	46,178	67,023	43,671	45,354	30,040
Saskatchewan...1944	49,733	37,292	40,752	28,212	25,873	21,247
1945	57,671	27,275	39,571	21,471	27,325	14,677
Alberta...1944	73,138	53,969	83,025	45,846	51,530	35,053
1945	79,857	38,207	79,160	35,174	54,323	24,255
British Columbia...1944	186,378	114,551	196,237	88,694	132,987	70,101
1945	227,526	85,605	207,420	71,735	146,458	46,160

Section 5.—Canadian Vocational Training*

During 1946, the Dominion Department of Labour, in co-operation with the Provincial Governments, carried on various training projects under the Vocational Training Co-Ordination Act, 1942: (1) Youth Training; (2) Assistance to Students and Universities; (3) War Emergency Training; (4) Apprenticeship Training; (5) Training for peacetime occupations of workers released from gainful employment; (6) Vocational Training on the secondary school level; (7) Training of Discharged Members of the Forces†.

In regard to the last-named project, the training of discharged members of the Forces is controlled by the Department of Veterans Affairs although it is effected by the Department of Labour. In Subsection 1, the administration of the program by the Department of Labour is outlined under the appropriate heading and, in Subsection 2, the relationship of the Department of Veterans Affairs to the training of veterans is explained.

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* Full information on the Canadian Vocational Training Program is given in the "Canadian Vocational Training Annual Report for 1945-46" issued as a supplement to the *Labour Gazette*, June, 1946.

† For university training under the Veterans' Rehabilitation Act, see Chapter X on Education and Research, pp. 288-290.

The Vocational Training Advisory Council, appointed under the authority of the Act, continued to advise the Minister on the general aspects of training plans. This Council is representative of employers, organized labour, vocational education authorities, veterans' and women's organizations.

Subsection 1.—The Vocational Training Program of the Department of Labour

The following table shows the allotment of Dominion funds to the provinces for the year ended Mar. 31, 1946, and the total payments made by the Dominion against these allotments.

15.—Dominion Allotments for Vocational Training for the Year Ended Mar. 31, 1946 and Claims Paid to Apr. 30, 1946, by Provinces

Province	Youth Training		Training of Discharged Members of the Forces		Apprentice Training	
	Allotment	Claims Paid to Apr. 30, 1946	Allotment	Claims Paid to Apr. 30, 1946	Allotment	Claims Paid to Apr. 30, 1946
	$	$	$	$	$	$
Prince Edward Island	12,000	6,274	30,000	24,186	Nil	–
Nova Scotia	25,000	12,807	247,000	165,523	12,500	2,849
New Brunswick	35,000	25,960	269,000	255,462	8,000	Nil
Quebec	135,000	64,717	435,000	152,684	Nil	–
Ontario	75,000	14,225	1,900,000	1,649,111	75,000	29,541
Manitoba	15,000	2,096	310,000	299,787	20,000	Nil
Saskatchewan	35,000	29,979	305,000	264,446	10,000	6,201
Alberta	65,000	13,800	475,000	367,987	10,000	Nil
British Columbia	60,000	35,520	261,000	240,452	5,000	4,463
Totals	**457,000**	**205,378**	**4,232,000**	**3,419,668**	**140,500**	**43,054**

Youth Training.—Each province submitted to the Department of Labour a list of the various types of training it proposed to carry on. These, on approval by the Minister of Labour, were incorporated into appropriate schedules which set forth the regulation governing the operation of the different plans. The training consisted, for the most part, of various general and specialized courses for rural young people in agriculture, home craft and handicrafts, and other related subjects.

Assistance to Students and Universities.—One part of the Youth Training Agreement in each province was devoted to assistance to students, including not only university students but in several provinces prospective teachers and nurses. Eligible for assistance were students of good academic standing who, without financial aid, could not continue training. At the discretion of the provincial authorities, assistance could be given in the form of a grant or a loan or a combination of both.

The special Student Aid Fund, begun in previous years, was used to assist students to attend a university in another province; payments were made solely by the Dominion, 50 p.c. as a grant and 50 p.c. as a loan.

The Department of Labour continued its grants to universities to assist in meeting the additional costs of accelerated courses in medicine and dentistry, which were started some years ago at the request of the Department of National Defence. During the year these grants amounted to about $48,900.

War-Emergency Training.—This type of training was discontinued during 1946, except for the streamlined courses for foremen and supervisors. The support of industry for these intensive classes continued and there was an enrolment during the year of 36,417. At the end of the fiscal year, the Provincial Governments were notified that in future the cost of supervisory training would be shared with them on a 50-50 basis. Previously, these costs had been borne entirely by the Dominion. Supervisory training expanded in many Dominion Government Departments.

Apprentice Training.—Apprenticeship Acts are in force in all provinces and Agreements for Dominion assistance have been completed with all except Prince Edward Island and Quebec. The trades designated under Provincial Acts have been added to and, at the end of the year, included all the building trades, motor mechanics and, in some provinces, barbering, hairdressing and other skilled trades. In Quebec, in some areas, under the Act of 1945, apprenticeship is regulated in the building trades, shoemaking, motor-vehicle repair, printing, lithographing, barbering and hairdressing, and watch repairing. In the Montreal Building Trades Centre, in its first 11 months of operation, 194 apprentices completed their pre-apprenticeship training and were placed in industry. The Shoemaking Apprenticeship Commission has given courses to 1,482 employees. The other Commissions are preparing their plans and courses.

The amounts spent by the Department of Labour under these Agreements are shown in Table **15**, p. 629.

Re-Training of Civilian Workers.—During the summer of 1945, the Re-establishment Training Agreements for co-operation between the Dominion and the provinces in training or re-training for peacetime occupations workers released from employment, chiefly war industries, was approved by the Dominion Government for a three-year period ending Mar. 31, 1948. The Dominion Department of Labour will pay from 75 p.c. to 80 p.c. of the cost. Workers are to be selected for training by representatives of the Provincial Governments and the National Employment Service.

The Agreement has been signed by the Provinces of British Columbia, Alberta, Saskatchewan, Nova Scotia and New Brunswick but up to the present time (May, 1947) little use has been made of its terms. It has been generally considered that veteran-training should receive attention first and this training has taxed the capacity of the training centres. The Dominion appropriation for the re-training of civilian workers for the year was $1,500,000, but up to the end of April, 1946, the total claims paid were only $1,395.

Dominion Assistance to Vocational Schools.—Ten-year agreements were made with all provinces for Dominion financial aid in vocational training on the secondary-school level. Each province receives an annual grant of $10,000; $1,910,000 is to be allotted each year among the different provinces in proportion to the number of young persons in the province in the age-group 15 to 19 years. A further contribution of $3,000,000, allotted on the same basis, was made available over a three-year period for capital expenditures for building and equipment. Except for the $10,000 grant, the Provincial Government must match the Dominion contribution dollar for dollar.

Training of Discharged Members of the Forces.—The training of discharged members of the Forces was carried on under a part of the War-Emergency Training Agreement which expired on Mar. 31, 1946. It is now provided for in the Re-establishment Training Agreement. The rapid demobilization and conversion from wartime to peacetime production imposed a severe strain on the training schemes. There was serious difficulty and delay in obtaining the buildings, equipment and supplies necessary for an efficient pre-employment training. By the end of the year, however, most of these difficulties had been overcome.

General Administration.—The same method of administration was followed in 1946 as in the previous year, with all the Provincial Governments co-operating with the Department of Labour in the field of education. The staff of Canadian Vocational Training has been augmented as training developed. During the year, Superintendents of Rehabilitation Training and Supervisors of Women's Training were appointed in all the provinces. In all appointments, preference has been given to veterans with overseas service.

Close relations were maintained with the Department of Veterans Affairs and with the National Employment Service, both at Headquarters and through the district offices of the two Departments and the local employment offices.

Enrolment.—On Mar. 31, 1945, enrolment in all types of training was 3,607; this was increased by Mar. 31, 1946, to 36,341. The number of man-days' training in the special C.V.T. Training Centres during the year was 1,917,786.

There has been some lack of balance in the numbers applying for training in the different occupations in spite of efforts of D.V.A. Counselors and C.V.T officials to divert applicants from occupations in which there appears to be danger of overcrowding. However, in certain building trades the number of veterans enrolled appeared to be far below the expected demands.

Training Facilities and Equipment.—Use has been made during the year of approximately 106 private schools, 200 business colleges, 48 provincial and municipal schools and 68 special C.V.T. Training Centres. At the outset of the program, the policy was laid down that training of veterans should be given on day shifts only, but shortage of equipment prevented rigid adherence to this rule, and the majority of Training Centres are now operating two shifts.

Substantial quantities of equipment have been given by the Armed Forces to the Canadian Vocational Training but much of it has been purchased from War Assets Corporation handling surplus Army supplies. Other equipment has been purchased in the open market, but at the end of the fiscal year some Training Centres were still inadequately equipped.

Pre-matriculation Training.—The wide range of individual academic attainments of ex-service men and women, as well as the differences in the subjects required, necessitated the provision of schools for the intensive training of those who lacked the requirements to enter either university or certain trades. There has been a rapid and unexpected increase in the number desiring pre-matriculation training.

Training-on-the-Job.—The most successful method of obtaining skill in many industrial occupations is training-on-the-job. During the year, this type of training became increasingly important, in that it afforded training for wider employment opportunities for veterans and also relieved the strain on many of the pre-employment schools. Special publicity has been given through bulletins to employers as well as radio and newspaper publicity, and the National Employment Service has co-operated most effectively in finding suitable training opportunities.

Subsection 2.—Vocational Training of Veterans*

The rehabilitation training program procedure in dealing with discharged persons who made application for training benefits previously came under the Post Discharge Re-establishment Order. This Order has now been replaced by the Veterans' Rehabilitation Act and the regulations and procedures governing training have been modified and consolidated so that there is now a comprehensive uniform plan in operation throughout Canada.

Veterans are being trained in approximately 100 specially organized institutes or training centres, operated by the Dominion-provincial organization known as Canadian Vocational Training. Use is being made of facilities provided by private, provincial and municipal schools and training institutions.

Of the total number of veterans receiving vocational training under the rehabilitation program as at Jan. 31, 1947, 69·7 p.c. were receiving full-time training in schools and institutions; 21·5 p.c. were being trained on the job in industrial and commercial establishments; 4·9 p.c. were receiving assistance by way of fees for correspondence or part-time courses; 0·1 p.c. were blind veterans being trained for suitable occupations under the auspices of the National Institute for the Blind; and 3·8 p.c. were receiving matriculation training prior to the vocational training.

Training is provided for approximately 300 occupations in the schools and training centres throughout the Dominion, and training-on-the-job is provided in over 250 trades and occupations, many of which are included in the 300 previously quoted.

Table **16** indicates the growth of the program since its inception. The numbers remained very small during 1942 and 1943, due to the relatively small numbers being demobilized and the demand for workers in war industries at high rates of pay.

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* Prepared in the Department of Veterans Affairs.

16.—Veterans Receiving Vocational Allowances during Each Month, 1942-47

Month	1942	1943	1944	1945	1946	1947
	No.	No.	No.	No.	No.	No.
January	138	275	573	1,892	21,998	39,134
February	218	264	646	2,407	27,511	38,909
March	271	246	764	3,081	29,756	37,385
April	258	202	763	3,330	32,184	31,871
May	247	181	814	3,651	34,157	29,527
June	202	224	774	3,962	35,598	26,115
July	171	310	863	3,990	36,165	....
August	193	271	950	4,145	35,827	....
September	172	330	1,083	4,332	36,882	....
October	211	335	1,360	5,980	39,057	....
November	263	394	1,596	8,523	40,422	....
December	287	459	1,700	16,457	39,630	....

The regulations provide for a maximum training period of 12 months subject to extension up to, but not exceeding, the period of active service. Those who served less than 12 months may receive training allowances for only as many months as they served on active rates of pay.

The average length of vocational training courses is approximately six months. In the case of highly skilled trades, veterans approved for advanced technical courses and those indentured as apprentices may receive assistance by way of grants or subsidies for two years or more provided they have served the necessary period to establish entitlement. Where veterans are trained on the job, the employer is expected to pay wages on a graduated scale commensurate with the earning capacity of the trainee and subject to the limitations of the Act. The Department of Veterans Affairs subsidizes these wage rates up to approximately 80 p.c. of the amount the trainee will receive from the employer on completion of the subsidized training period.

From the inception of the Vocational Training Scheme until January, 1947, some 67,890 veterans had been granted allowances to enable them to take advantage of the training:—

Year and Month	*No.*	*Year and Month*	*No.*
Nov. 1941—Mar. 1942	238	Apr. 1945—Mar. 1946	17,929
Apr. 1942—Mar. 1943	783	Apr. 1946—Jan. 1947	42,458
Apr. 1943—Mar. 1944	1,497		
Apr. 1944—Mar. 1945	4,985	Totals	67,890

The following subdivision of veterans according to the province in which the application for training was approved, is based upon Department of Veterans Affairs districts (applications approved at Head Office were for training outside Canada) and is liable to minor errors where D.V.A. district boundaries and provincial boundaries do not coincide:—

Province	*No.*	*Province*	*No.*
Prince Edward Island	350	Saskatchewan	4,504
Nova Scotia	3,149	Alberta	5,715
New Brunswick	2,357	British Columbia	7,374
Quebec	10,570	Head Office	559
Ontario	26,272		
Manitoba	7,040	Totals	67,890

The status of the 32,788 veterans actually in receipt of allowances on Jan. 31, 1947, was as follows:—

Nature of Training	*Men*	*Women*	*Total*
	No.	No.	No.
In schools and training centres	18,364	2,966	21,330
Training-on-the-job	7,028	156	7,184
Prematriculation prior to vocational training	1,065	216	1,281
Semi-professional training	1,615	277	1,892
Correspondence courses: Employed persons	933	11	944
Correspondence courses: In hospitals and institutions	155	2	157
Totals	29,160	3,628	32,788

In addition to the above there were 1,986 men who were training-on-the-job without allowances, due to the fact that employer-trainers pay self-sustaining wages prior to the expiration of the training period.

As would be expected, certain trades and occupations, approximately 50 in number, account for the majority of the trainees; of the 67,890 veterans approved for training the following trades or occupations have been selected by over 300 veterans in each case:—

Trade or Occupation	*Veterans Trained or in Training*	*Trade or Occupation*	*Veterans Trained or in Training*
	No.		No.
Accountants, auditors etc	3,757	Musicians, singers, etc	589
Artists, sculptors etc	506	Nurses	320
Agricultural occupations	970	Office machine operators	344
Automobile mechanics	5,679	Painters — construction and maintenance	701
Bakers	350	Photographers	513
Barbers	1,673	Plumbers and steamfitters	2,070
Beauticians	1,219	Printing and publishing	425
Bookkeepers and audit clerks	812	Protective service occupations	4,676
Boot and shoe-makers	670	Radio operators	617
Bricklayers and tile-setters	1,427	Radio repairmen	1,167
Butchers and meat-cutters	406	Refrigerator mechanics	499
Cabinet makers	849	Salesmen	471
Carpenters	3,542	Secretaries	1,022
Clerks — general office	5,882	Sheetmetal workers	986
Commercial artists	1,004	Stenographers	2,865
Compositors and typesctters	382	Structural steel workers	825
Designers	381	Tailors	338
Draftsmen	2,170	Teachers	348
Dressmakers	872	Telegraph operators	577
Electricians	3,799	Toolmakers and die-setters	477
Engineer — stationary engine	378	Upholsterers	501
General mechanics	1,877	Welders and flame-cutters	1,369
Hotel and restaurant managers	549	Others	3,031
Jewellers and watchmakers	822	TOTAL	67,890
Laboratory technicians and assistants	391		
Machinists	2,438		
Mothercraft nurses, nurses aides and assistants	354		

Section 6.—Organized Labour in Canada

Information concerning trade unions in Canada is published in the Annual Report on "Labour Organization in Canada" issued by the Department of Labour.

At the close of 1945 there were 711,117 trade union members in Canada. The membership of the Trades and Labour Congress of Canada, as compiled from reports of unions to the Department of Labour, was 312,391 in 2,394 branches of affiliated and directly chartered unions; that of the Canadian Congress of Labour was 244,750 in 955 branches and local unions; that of the Canadian and Catholic Confederation of Labour, 68,205 in 310 branches; the independent railroad brotherhoods, 37,273 in 371 branches; and independent local unions 7,356 in 55 branches.

Trades and Labour Congress of Canada.—The Congress is the oldest of the central labour organizations in Canada. After the disbanding of the Canadian Labour Union, which had drawn together local unions in Ontario from 1873 to 1877, inclusive, there was no central organization until 1883 when the Trades and Labour Council of Toronto called a conference of local unions and plans were made to establish a Dominion organization which was formally set up in 1886.

Affiliated with the Trades and Labour Congress at the present time are "international" trade unions, almost all of which are also affiliated with the American Federation of Labor, a number of Canadian or "national" unions and a number of directly chartered labour unions.

Canadian Congress of Labour.—This Congress was organized in September, 1940, when the All-Canadian Congress of Labour, formed in 1927, amended its constitution to permit the affiliation with the Congress of the Canadian branches of those international unions which, in the United States, are affiliated with the Congress of Industrial Organizations. The Canadian Congress has also among its members a number of unions to which it has granted charters. An exception to the statement concerning international unions is the United Mine Workers of America which is linked in Canada with the Canadian Congress of Labour but, in the United States, with the American Federation of Labor.

Canadian and Catholic Confederation of Labour.—National Catholic Unions in Canada date from 1901. In 1921 these local Catholic Syndicates, which are grouped in federations according to industry so far as possible, formed a central organization, the Canadian and Catholic Confederation of Labour. These unions are confined to the Province of Quebec.

17.—Membership of Trade Unions in Canada, 1913-45

Year	Members	Year	Members	Year	Members
	No.		No.		No.
1913	175,799	1924	260,643	1935	280,648
1914	166,163	1925	271,064	1936	322,746
1915	143,343	1926	274,604	1937	383,492
1916	160,407	1927	290,282	1938	381,645
1917	204,630	1928	300,602	1939	358,967
1918	248,887	1929	319,476	1940	362,223
1919	378,047	1930	322,449	1941	461,681
1920	373,842	1931	310,544	1942	578,380
1921	313,320	1932	283,096	1943	664,533
1922	276,621	1933	285,720	1944	724,188
1923	278,092	1934	281,274	1945	711,117

18.—Distribution of Trade Union Members, by Main Industrial Groups, 1944 and 1945, with Percentage Changes

Industry	1944		1945		Percentage Change 1945 from 1944
	Members	P.C. of Total	Members	P.C. of Total	
	No.		No.		
Mining and quarrying	38,601	5·3	37,193	5·3	−3·6
Metals	193,336	26·7	147,909	20·8	−23·5
Construction	57,501	8·0	65,569	9·2	+14·0
Light, heat and power	9,300	1·3	8,977	1·3	−3·5
Wood and wood products	48,941	6·7	49,259	6·9	+0·6
Printing and publishing	12,212	1·7	14,234	2·0	+16·6
Steam railway transportation	121,245	16·7	127,945	18·0	+5·5
Other transportation	45,236	6·2	49,991	7·0	+10·5
Services	70,675	9·8	76,441	10·7	+8·2
Clothing and footwear	39,592	5·5	46,122	6·5	+16·5
Textiles	27,996	3·9	28,248	4·0	+0·9
Foods	28,737	4·0	28,464	4·0	−0·9
All other industries	30,816	4·2	30,765	4·3	−0·2
Totals	**724,188**	**100·0**	**711,117**	**100·0**	**−1·8**

19.—Trade Unions Having 1,000 or More Members in Canada, as at Dec. 31, 1944 and 1945

Organization	Reported or Estimated Membership	
	1944	1945
	No.	No.
International Unions		
Automobile, Aircraft and Agricultural Implement Workers of America, International Union of United	51,500	51,000
Bakery and Confectionery Worker's International Union of America	900	1,050
Blacksmiths, Drop Forgers and Helpers, International Brotherhood of	1,339	1,339
Boilermakers, Iron Shipbuilders and Helpers of America, International Brotherhood of	4,749	5,238
Bookbinders, International Brotherhood of	1,613	1,727
Boot and Shoe Workers Union	1,500	1,500
Brewery, Flour, Cereal and Soft Drink Workers, International Union of United	1,000	1,000
Bricklayers, Masons and Plasterers' International Union of America	1,309	1,429
Building Service Employees' International Union	587	2,500
Carpenters and Joiners of America, United Brotherhood of	13,831	20,271
Chemical Workers Union, International	3,500	3,731
Clothing Workers of America, Amalgamated	7,000	9,250
Commercial Telegraphers' Union	2,710	2,827
Distillery, Rectifying and Wine Workers', International Union of America	1,294	2,252
Electrical, Radio and Machine Workers of America, United	10,718	6,521
Electrical Workers, International Brotherhood of	7,825	8,325
Engineers, International Union of Operating	2,084	2,050
Firefighters, International Association of	2,450	2,400
Firemen, Oilers and Railway Shop Labourers, International Brotherhood of	1,156	1,465
Fur and Leather Workers' Union of the United States and Canada, International	5,000	5,000
Garment Workers of America, United	1,200	1,350
Garment Workers' Union, International Ladies'	10,724	11,259
Hatters, Cap and Millinery Workers', International Union, United	1,781	1,774
Hotel and Restaurant Employees' International Alliance and Bartenders' International League of America	3,583	4,941
Industrial Workers of the World	1,600	1,600
Laundry Workers' International Union	1,000	1,000
Locomotive Engineers, Brotherhood of	6,735	6,863
Locomotive Firemen and Enginemen, Brotherhood of	8,890	9,062
Longshoremen's Association, International	3,200	5,000
Machinists, International Association of	33,697	26,000
Maintenance-of-Way Employees, Brotherhood of	18,590	18,187
Metalworkers' International Association, Sheet	1,915	1,957
Mine, Mill and Smelter Workers, International Union of	12,500	11,739
Mine Workers of America, United	21,846	23,710
Moulders and Foundry Workers' Union of North America, International	4,448	4,167
Musicians, American Federation of	6,000	5,500
Packing House Workers of America, United	14,938	9,500
Painters, Decorators and Paper Hangers of America, Brotherhood of	2,129	3,012
Paper Makers, International Brotherhood of	5,192	5,513
Plumbers and Steamfitters of the United States and Canada, United Association of Journeymen	6,096	7,200
Printing Pressmen and Assistants' Union of North America, International	1,324	2,667
Pulp, Sulphite and Paper Mill Workers, International Brotherhood of	15,500	15,000
Railroad Telegraphers, Order of	7,730	9,000
Railroad Trainmen, Brotherhood of	18,052	18,811
Railway and Motor Coach Employees of America, Amalgamated Association of Street, Electric	8,819	10,450
Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of	9,017	11,447
Railway Carmen of America, Brotherhood of	15,000	16,079
Railway Conductors of America, Order of	2,470	2,527
Retail Clerks International Protective Association	909	1,350
Rubber, Cork, Linoleum and Plastic Workers of America, United	7,198	8,078
Seafarers International Union of North America	2,200	1,500
Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical	1,000	1,000
Steel Workers of America, United	50,000	30,000
Teamsters, Chauffeurs, Warehousemen and Helpers of America, International Brotherhood of	4,577	3,029
Textile Workers of America, United	4,000	9,000
Textile Workers Union of America	–	6,000
Tobacco Workers' International Union	4,145	4,425
Typographical Union, International	4,432	5,166
Upholsterers International Union of North America	678	2,000
Woodworkers of America, International	13,000	12,500

19.—Trade Unions Having 1,000 or More Members in Canada, as at Dec. 31, 1944 and 1945—concluded

Organization	Reported or Estimated Membership	
	1944	1945
	No.	No.
National Unions		
Aircraft, Furniture Workers and Allied Crafts, National Union of	2,200	1,100
Aluminum Workers, National Federation of	3,776	3,420
Barbers and Hairdressers, National Federation of	1,014	1,022
Building and Construction Workers of Canada, Amalgamated	3,825	3,600
Building Trades, National Catholic Federation of	16,435	15,404
Civil Servants of Canada, Amalgamated	5,981	6,015
Civil Service Association of Alberta	2,030	2,258
Civil Service Association, the Saskatchewan	2,500	2,480
Clothing Workers, National Federation of	1,623	1,500
Commerce and Finance, National Federation of Employees of	3,000	2,376
Customs and Excise Officers' Association	2,000	1,868
Electrical Workers, National Organization of Civic, Utility and	644	1,274
Engineers of Canada, National Union of Operating	2,701	2,849
Express Employees, Brotherhood of	2,147	2,259
Fishermen's Union, Canadian	1,275	1,786
Furniture Workers, National Catholic Federation of	754	1,500
Glove Workers of Canada, National Federation of	942	1,200
Hosiery Workers, National Federation of Full Fashioned and Circular	1,076	2,163
Letter Carriers, Federated Association of	2,140	2,350
Marine Workers Federation, Maritime	–	3,011
Maritime Federation, National (Formerly Canadian Brotherhood of Ships Employees)	8,625	8,993
Metal Workers, National Federation of	1,632	2,288
Mining Industry, National Federation of Employees of the, (Formerly The National Catholic Federation of Asbestos Employees of the Province of Quebec)	2,385	2,510
One Big Union	5,380	7,034
Packinghouse, Butchers and Allied Food Workers Union of Canada	–	4,000
Postal Employees Association, Canadian	3,645	4,200
Printing Trades of Canada, Catholic Federation of	2,400	2,000
Pulp and Paper Employees, National Federation of	8,000	7,000
Railway Employees and Other Transport Workers, Canadian Brotherhood of	26,000	28,000
Railwaymen, Canadian Association of	3,676	3,803
Railwaymen, National Union of	3,001	3,020
Seamen's Union, Canadian	7,225	9,420
Shipyard General Workers Federation of British Columbia	12,761	4,500
Shipyard Workers Federation of Eastern Canada	–	2,435
Shoe and Leather Workers', National Union of	1,132	1,216
Shoe Workers of Canada, National Federation of Leather and	4,632	4,775
Teachers Federation of British Columbia	3,165	3,159
Textile Workers, National Catholic Federation of	10,410	6,789
Textile Workers of Canada, United	5,956	5,544
Textile Workers' Organizing Committee	1,193	–
Wood Industry Workers, National Catholic Federation of	3,000	3,042

Canada and the International Labour Organization.—The International Labour Organization was established in 1919 in association with the League of Nations under the Treaties of Peace with the object of improving labour conditions throughout the world by international agreement and legislative action. Under an agreement approved by the General Conference of the International Labour Organization at its 29th Session at Montreal, Que., on Oct. 2, 1946, and by the United Nations General Assembly on Dec. 14, 1946, the Organization became a specialized agency of the United Nations.

An association of nations, financed by their Governments and controlled by representatives of those Governments and of their organized employers and workers, the Organization comprises: (1) the General Conference of representatives of the Member States; (2) the International Labour Office; and (3) the Governing Body of the Office.

The Conference in normal times meets at least once a year, and is composed of four delegates from each Member State, two representing the Government and two representing employers and workers, respectively. Decisions of the Conference are in the form of Conventions or Recommendations. The former, when given legislative effect and ratified by Member States, are legally binding on them and their enforcement within such countries is a matter for annual consideration by the Conference. The I.L.O. Constitution requires, however, that every Convention must be brought before the competent authority or authorities for legislative or other action. In Canada, the competent authorities in respect to the subject matter of most of the Conventions and Recommendations are the Provincial Legislatures. Amendments to the Constitution adopted by the Conference in 1946 included new provisions concerning the obligations imposed on federal countries with respect to the manner of dealing with Conventions and Recommendations when ratified by two-thirds of the Member States. These changes in procedure are expected to facilitate the adoption of Conventions and Recommendations by the constituent States or Provinces of federal countries.

The International Labour Office acts as the permanent secretariat of the Organization and as an information centre and publishing house.

The Governing Body consists of 32 persons, 16 Government representatives, eight employers' and eight workers' representatives, of whom all but the representatives of the eight States of chief industrial importance, which hold permanent seats, are elected triennially by the Conference. The Governing Body, which usually meets quarterly, has general supervision of the International Labour Office, frames its budget and fixes the agenda of the Conference when the Conference itself does not do so. Three sessions were held at Montreal during 1946—in May, September and October.

There have been 29 sessions of the Conference at which 80 draft Conventions and 80 Recommendations have been adopted covering a wide range of subjects: hours of work; weekly rest; holidays; minimum age for employment; night-work of women and young persons; minimum wages; health and safety; workmen's compensation; seamen's conditions; insurance against unemployment, sickness, old age and death; colonial labour problems; protection of migrant workers; and many other aspects of the protection of workers' rights and interests. There have been 921 ratifications of these Conventions from 51 countries.

Eight International Labour Conventions have been given legislative effect by Dominion Parliament and have been ratified by the Government, six relating to seamen, one to dockers and one to statistics.

During 1946, the third regional Conference of the American members of the I.L.O. was held at Mexico city, Mexico. The 28th Session of the Conference was held at Seattle, U.S.A., and the 29th at Montreal, Canada. Canada was represented at Mexico (April) by a tri-partite delegation of workers, employers and Government members. Twenty-eight resolutions were adopted dealing chiefly with industrial relations, labour inspection and vocational training. The Maritime Conference at Seattle in June, at which Canada had 12 representatives, adopted nine Conventions concerning minimum wages and maximum hours of work, food on board ship, crew quarters, holidays with pay and social security.

In September-October at Montreal, 46 countries were represented by 429 delegates, advisers, official observers and others. The Minister of Labour of Canada was elected President. Three Conventions were adopted concerning medical examination of children and young persons for employment in industry and in non-industrial occupations; and the restriction of night work of children and young persons in non-industrial occupations. Recommendations were made concerning medical examination in industry and concerning night work in non-industrial occupations.

Four of the standing committees set up in 1945 by the Governing Body to provide special machinery for considering the labour problems of major world industries held their first meetings during 1946. These were: the Iron and Steel at Cleveland, Ohio, U.S.A., in April; the Metal Trades at Toledo, Ohio, in May; the Textiles at Brussels, Belgium, in November; and the Building, Civil Engineering and Public Works at Brussels in December.

Fuller information concerning these various meetings may be found in the *Labour Gazette.*

Section 7.—Industrial Accidents and Workmen's Compensation

Subsection 1.—Fatal Industrial Accidents

Statistics of fatal industrial accidents have been compiled by the Dominion Department of Labour since 1903. The data are now obtained from provincial Workmen's Compensation Boards, the Board of Transport Commissioners and other government authorities, from departmental correspondents and press reports.

20.—Fatal Industrial Accidents, by Industries, 1943-46

Industry	Numbers				Percentages of Total			
	1943	1944	1945	1946	1943	1944	1945	1946
Agriculture	99	109	114	110	6·8	9·1	8·5	8·2
Logging	151	137	166	145	10·3	11·4	12·3	10·8
Fishing and trapping	49	34	20	41	3·3	2·8	1·5	3·0
Mining, non-ferrous smelting and quarrying	213	158	188	173	14·5	13·1	14·0	12·8
Manufacturing	310	271	269	337	21·2	22·6	20·0	25·0
Construction	154	100	127	130	10·5	8·3	9·4	9·6
Electric light and power	16	17	24	22	1·1	1·4	1·8	1·6
Transportation and public utilities	334	264	292	232	22·7	21·8	21·7	17·2
Trade	59	53	52	51	4·0	4·4	3·9	3·8
Finance	1	1	Nil	3	0·1	0·1	–	0·2
Service	79	59	88	98	5·4	4·9	6·5	7·3
Miscellaneous	1	1	5	7	0·1	0·1	0·4	0·5
Totals	**1,466**	**1,204**	**1,345**	**1,349**	**100·0**	**100·0**	**100·0**	**100·0**

Causes of Fatal Accidents.—During 1946, the largest number of fatal accidents to gainfully employed persons, 391, were caused by moving trains, vehicles, etc. Falls of persons caused 226 fatalities and falling objects 164. Other fatal accidents included: 155 caused by dangerous substances, 55 by striking against or being struck by objects, 26 by animals, 23 by hoisting apparatus, 23 by working machines, 16 by prime movers and 13 by handling objects. Included in the category "other causes" were 253 fatalities of which 158 were due to industrial disease, strain, etc. The number of accidents, fatal and non-fatal, dealt with by the provincial Workmen's Compensation Boards are shown in Subsection 2.

Subsection 2.—Workmen's Compensation*

In all provinces, except Prince Edward Island, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease, except where the workman is disabled for less than a stated number of days. To ensure payment of such compensation, each provincial Act provides for an accident fund, administered by a Board, to which employers are required to contribute at a rate determined by the Board in accordance with the hazards of the industry. A workman to whom these provisions apply has no right of action against his employer for injury from an accident during employment. In Ontario and Quebec, public authorities, railway and shipping companies, and telephone and telegraph companies are individually liable for compensation, as determined by the Board, and pay a proportion of the expenses of administration. A Dominion Act provides for compensation for accidents to Dominion Government employees according to the conditions laid down by the Act of the province in which the accident occurs. In Prince Edward Island, where there is no provincial Act in effect, compensation is paid to Dominion Government employees according to the provisions of the New Brunswick Act. Dominion Regulations of 1945 under the War Measures Act providing compensation for seamen who are not under a provincial Workmen's Compensation Act were replaced in 1946 by the Merchant Seamen Compensation Act which makes like provision.

Free medical aid is given to workmen during disability in all provinces.

Compensation is payable in all provinces for anthrax and for poisoning from arsenic, lead, mercury and phosphorus. In all provinces, except New Brunswick, silicosis is compensated under certain conditions. The other diseases compensated vary according to the industries of the provinces.

Scope of the Acts.—The Acts vary in scope, but, in general, they cover construction, mining, manufacturing, lumbering, fishing, transport and communications and the operation of public utilities. Undertakings in which not more than a stated number of workmen are usually employed may be excluded, except in Alberta and British Columbia.

Benefits.—Under each Act, a fixed period must elapse between the date of the accident and the date when compensation begins but in all cases medical aid is given from the date of the accident. This waiting period varies from three to seven days and in some provinces compensation is paid for the waiting period, if disability continues beyond it.

At present, compensation in fatal cases is paid as follows:—

Burial expenses, $100 in New Brunswick, $150 in Manitoba and Nova Scotia, $175 in Quebec, and $125 in the other provinces. In certain cases costs of transporting the body are also allowed.

To a widow or invalid widower, or to a foster mother as long as the children are under the age-limit, a monthly payment in Manitoba and Ontario of $45 and in the remaining provinces $40; in addition a lump sum of $100 is paid in New Brunswick, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia.

For each child in the care of a parent or foster-mother receiving compensation, a monthly payment is made of $10 in New Brunswick, Nova Scotia, Quebec, Ontario and British Columbia, but in the latter province $12·50 is paid to children between

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* Fuller information is given in an annual pamphlet issued by the Department of Labour.

16 and 18 years of age attending school; in Manitoba $12 for the eldest child, $10 for the second, $9 for the third, and $8 for each additional child; in Alberta and Saskatchewan, $12 for each child. To each orphaned child $20 per month is paid in Nova Scotia, Saskatchewan, Alberta and British Columbia and $15 in the other provinces with a maximum of $80 per month to one family in Nova Scotia and British Columbia.

Except in the case of invalids, payments to children are not continued beyond the age of 16 in Nova Scotia, Ontario, Manitoba and Saskatchewan, 18 in Quebec, Alberta and British Columbia, and 16 for boys and 18 for girls in New Brunswick. In Manitoba, Nova Scotia, Ontario and Saskatchewan payments for children may be made up to the age of 18 if it is desirable to continue their education. In British Columbia and Manitoba payments to invalid children are continued until recovery, while the other provinces make payments only for the length of time the Boards consider that the workman would have contributed to their support.

Where the only dependents are persons other than consort or children, all the Acts provide that compensation is to be a reasonable sum proportionate to the pecuniary loss but the total monthly sum to be paid to all such dependents is limited to $40 in Manitoba, $70 in Alberta, $45 in Nova Scotia and $55 in British Columbia. In British Columbia, however, if there are also dependents such as widow, invalid widower or children, the maximum payable to other dependents is $40 per month. In all provinces, compensation to dependents other than consort or children is continued only for such time as the Board considers that the workman would have contributed to their support.

Except in Alberta, Saskatchewan and British Columbia, maximum benefits payable to dependents in case of death of the workman are two-thirds of the earnings. The minimum payable to a consort and one child in Quebec is $50 per month or $12·50 per week if there is more than one child; in Manitoba and Saskatchewan the minimum is $12·50 per week ($15 per week in Manitoba if there is more than one child). In Ontario, the minimum for a consort and one child is $55 per month, irrespective of the workman's earnings, with an additional $10 per month for each additional child unless the total compensation exceeds the workman's average earnings in which case compensation is an amount equal to such earnings or $55, whichever is greater.

The rate for permanent total disablement in all provinces except Saskatchewan, is a weekly payment for its duration equal to $66\frac{2}{3}$ p.c. of the average weekly earnings; in Saskatchewan it is 75 p.c.; except in New Brunswick, the Acts fix a minimum weekly sum that must be paid unless earnings fall below that minimum, in which case a sum equal to the earnings is paid. This minimum is $12·50 in Nova Scotia, Ontario, Alberta and British Columbia, and $15 in Manitoba, Quebec and Saskatchewan. For partial disablement similar provision is made in all provinces, except New Brunswick, Saskatchewan and Alberta, i.e., two-thirds of the difference in earnings before and after the accident; in Saskatchewan, 75 p.c. In New Brunswick and Alberta, the amount is determined by the Board according to the impairment of earning capacity, but in New Brunswick two-thirds of the diminution of earnings is payable for temporary partial disablement. In Nova Scotia, if there is little or no difference, in New Brunswick in any case, and in the other provinces if the difference is 10 p.c. or less, a lump sum may be given.

The average earnings on which compensation is based must be computed in the manner best calculated to give the rate per week or per month at which the worker was remunerated but must not exceed $2,500 in British Columbia, Saskatchewan and Ontario, and $2,000 in the other provinces. If the workman's earnings at the time of the accident are not considered a proper basis for compensation, the Board may use as a basis the average earnings of another person in the same grade of work. The rate of compensation of workmen under 21 years of age may be later increased if it is probable that their earning power, had the injury not occurred, would have increased.

The statistics of workmen's compensation published by the provincial boards are not on a comparable basis and are therefore presented as a series of tables.

21.—Operations of the Nova Scotia Workmen's Compensation Board, 1936-45

Note.—Estimates for outstanding claims not included. Statistics for the years 1917-35 are given at p. 757 of the 1938 Year Book.

Year	Compensation	Medical Aid	Total	Accidents Compensated
	$	$	$	No.
1936	1,160,738	167,255	1,327,993	10,246
1937	1,189,710	190,846	1,380,556	11,953
1938	1,976,154	206,233	2,182,387	11,408
1939	1,391,933	189,031	1,580,964	11,823
1940	1,285,390	190,616	1,476,006	13,948
1941	1,285,753	217,129	1,502,882	15,150
1942	1,730,169	211,663	1,941,832	17,455
1943	2,897,718	196,511	3,094,229	16,926
1944	2,693,483	185,392	2,878,875	19,027
1945	1,243,148	207,000	1,450,148	18,396

22.—Operations of the New Brunswick Workmen's Compensation Board, 1936-45

Note.—Statistics for the years 1920-35 are given at p. 757 of the 1938 Year Book.

Year	Weekly Compensation	Permanent Partial Disability	Fatal		Medical Aid		Permanent Total Disability Reserve
			Funeral Expenses	Reserve for Pensions	Doctors' Fees and Transportation	Hospital and Nursing Service	
	$	$	$	$	$	$	$
1936	247,204	88,596	2,290	106,633	130,266	101,262	9,347
1937	304,033	79,246	2,101	73,180	140,014	108,521	[1]
1938	210,590	57,597	1,478	58,359	94,591	51,144	7,326
1939	220,053	78,326	1,833	69,175	103,115	59,295	5,361
1940	259,571	62,159	1,759	108,227	84,594	48,200	10,309
1941	410,058	115,845	3,659	118,472	130,130	75,570	14,364
1942	459,528	82,632	3,275	143,392	125,837	89,246	[2]
1943	486,304	113,332	2,900	94,414	115,121	82,266	5,085
1944	509,975	89,749	1,700	102,409	80,526	64,894	8,330
1945[3]	606,537	86,891	1,656	111,287	77,981	73,688	[1]

[1] No reserve reported. [2] Not available. [3] Subject to revision.

23.—Operations of the Quebec Workmen's Compensation Commission, 1936-45

NOTE.—Statistics for the years 1928-35 are given at p. 778 of the 1940 Year Book.

Year	Claims Schedules 1 and 2	Compensation Schedule 1	Medical Aid Schedule 1
	No.	$	$
1936	43,838	3,186,181	836,546
1937	70,355	4,542,436	1,133,517
1938	58,335	3,480,011	866,454
1939	53,942	3,143,787	778,665
1940	65,704	4,301,893	1,093,928
1941	82,568	4,730,726	1,210,325
1942	96,888	6,792,098	1,475,123
1943	90,564	6,462,259	1,389,008
1944	84,308	7,012,031	1,414,138
1945[1]	82,724	4,146,657	1,010,305

[1] Subject to revision.

24.—Operations of the Ontario Workmen's Compensation Board, 1936-45

NOTE.—Statistics for the years 1915-35 are given at p. 759 of the 1938 Year Book.

Year	Benefits Awarded				Accidents Reported
	Schedule 1		Schedule 2[1] and Crown Compensation	Total Benefits	
	Compensation	Medical Aid			
	$	$	$	$	No.
1936	3,553,282	1,058,642	1,031,874	5,643,798	61,382
1937	3,837,589	1,251,848	1,040,523	6,129,960	70,582
1938	4,362,618	1,153,895	947,748	6,464,261	59,834
1939	4,174,408	1,094,693	883,306	6,152,407	60,520
1940	4,852,470	1,408,250	1,022,158	7,282,878	81,116
1941	6,662,466	1,772,376	1,464,052	9,898,894	113,822
1942	7,225,733	1,977,854	1,733,376	10,936,963	133,513
1943	6,932,198	1,948,048	2,264,507	11,144,753	131,458
1944	8,317,960	1,888,846	2,278,793	12,485,599	123,820
1945	8,690,344	1,889,830	2,555,764	13,135,938	118,220

[1] Comprises employers individually liable.

25.—Operations of the Manitoba Workmen's Compensation Board, 1936-45

NOTE.—Statistics for the years 1917-35 are given at p. 760 of the 1938 Year Book.

Year	Benefits Awarded			Accidents Compensated
	Compensation	Medical Aid	Total	
	$	$	$	No.
1936	702,321	211,307	913,628	9,299
1937	688,312	204,259	892,571	9,153
1938	784,816	202,925	987,741	9,331
1939	736,903	196,090	932,993	9,401
1940	829,905	230,345	1,060,250	11,202
1941	1,041,261	241,187	1,282,448	13,378
1942	1,165,627	245,255	1,410,882	13,785
1943	1,386,104	240,492	1,626,596	13,948
1944	1,379,142	225,088	1,604,230	16,229
1945	1,353,094	211,125	1,564,219	16,196

26.—Operations of the Saskatchewan Workmen's Compensation Board, 1936-45

NOTE.—Statistics for the years 1930-35 are given at p. 760 of the 1938 Year Book.

Year	Benefits Awarded			Accidents Compensated
	Compensation	Medical Aid	Total	
	$	$	$	No.
1936	357,545	89,930	447,475	4,642
1937	349,862	98,928	448,790	4,296
1938	369,711	106,874	476,585	4,219
1939	388,848	103,897	492,745	4,984
1940	371,894	121,455	493,349	5,260
1941	472,281	136,827	609,108	5,825
1942	539,942	150,679	690,621	6,766
1943	676,592	138,355	814,947	6,921
1944	853,022	156,594	1,009,616	7,702
1945[1]	672,414	158,275	830,689	6,681

[1] Subject to revision.

27.—Operations of the Alberta Workmen's Compensation Board, 1936-45

NOTE.—Statistics for the years 1921-35 are given at p. 761 of the 1938 Year Book. Amounts shown do not include sums transferred to pension fund, administration expenses, nor sums set aside to cover estimated liabilities. Accidents compensated do not include cases for medical aid only.

Year	Benefits Awarded			Accidents Reported	Accidents Compensated
	Compensation	Medical Aid	Total		
	$	$	$	No.	No.
1936	436,498	262,801	699,299	12,381	4,834
1937	446,716	290,733	737,449	13,177	5,096
1938	468,626	317,807	786,433	13,377	6,367
1939	464,398	339,388	803,786	13,504	6,584
1940	447,362	292,565	739,927	14,632	6,384
1941	497,913	316,273	814,186	16,928	7,755
1942	608,885	322,375	931,260	18,680	7,509
1943	816,493	368,299	1,184,792	19,700	7,602
1944	498,303	234,708	733,011	19,286	7,988
1945	517,879	249,639	767,518	19,154	8,891

28.—Operations of the British Columbia Workmen's Compensation Board, 1936-45

NOTE.—Figures for the years 1917-35 are given at p. 762 of the 1938 Year Book.

Year	Benefits Awarded			Claims (gross)
	Compensation	Medical Aid	Total	
	$	$	$	No.
1936	2,536,166	595,894	3,132,060	29,677
1937	2,966,110	684,115	3,650,225	35,005
1938	3,182,762	701,953	3,884,715	31,505
1939	3,404,434	720,265	4,124,699	33,173
1940	3,692,950	834,073	4,527,023	38,487
1941	4,601,810	935,422	5,537,232	46,496
1942	6,941,736	1,586,164	8,527,900	65,475
1943	7,344,122	1,184,253	8,528,375	68,635
1944	8,031,613	1,182,236	9,213,849	60,463
1945	6,402,065	1,208,944	7,611,009	55,854

Section 8.—Strikes and Lockouts

Statistics of strikes and lockouts in Canada have been collected by the Department of Labour since its establishment in 1900.

Summary tables of the figures, with details as to strikes and lockouts in 1945 and 1946, will be found in the *Labour Gazette* for March, 1946, and for March, 1947, respectively.

Strikes and Lockouts in Recent Years.—The period of reconversion of industry to peacetime production during 1946 was marked by a series of strikes in certain key industries. These involved large numbers of workers and were of unusually long duration. While the total number of stoppages during the year was not substantially higher than in the two previous years, the number of workers involved was greater than in any of the war years, except 1943. The loss of working time due to strikes was greater than in any other year on record and exceeded the total for all the war years, 1939 to 1945. However, if allowance is made for the great increase in industrial employment, the time-loss was not as great as in 1919, the first year after the First World War.

In 1946, more than 62 p.c. of the workers involved in strikes and more than 83 p.c. of the total time-loss were in manufacturing. In coal mining, the number of strikes was slightly higher than in the previous year but the time-loss was less, being only 1 p.c. of the total for the year. Twelve strikes involved 63 p.c. of the total number of workers and caused 90 p.c. of the total time-loss. During 1946, the loss of working time was five days in every 1,000 of available working time. Comparative figures for certain earlier years were: 1945, 1·6 days; 1944, 0·5 day; 1943, 1·1 days; 1942 and 1941 about 0·5 day each; and for 1919, the estimate was 6·4 days. Each wage and salary worker lost on the average about 1·5 days in 1946 and 0·5 day in 1945. For 1919, the estimate was 2 days.

Since the strike-record was started, the demand for increases in wages has been generally, year by year, the most important single cause of strikes. The year 1945 was an exception. While more strikes were due to this cause than to any other, they resulted in a very small proportion of the total time-loss in that year. Most of the idleness in 1945 arose from disputes concerning unionism. In 1946, the demand for wage increases was a major issue in about 30 p.c. of the strikes and, combined with various union questions, was the principal cause in many others, with a resulting time-loss of about 95 p.c. of the total.

Since 1935, the proportion of strikes settled by public conciliation services and by reference to various other Government agencies has increased. Before that year about one-half the work stoppages were settled by direct negotiation. In 1946, about one-half the strikes were settled by the conciliation services or by reference to Government labour boards or to arbitration.

29.—Strikes and Lockouts, 1937-46

NOTE.—For the years 1901-20, see the 1933 Year Book, p. 763, and for 1921-36 the 1938 Year Book, p. 763.

Year	Coal Mining			Industries other than Coal Mining			All Industries			
	Strikes and Lock-outs in Exist-ence During Year	Workers Involved	Time Loss in Man-Working Days	Strikes and Lock-outs in Exist-ence During Year	Workers Involved	Time Loss in Man-Working Days	Strikes and Lock-outs in Exist-ence During Year	Strikes and Lock-outs Begin-ning in Year	Workers Involved	Time Loss in Man-Working Days
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1937.....	44	15,477	112,826	234	56,428	773,567	278	274	71,905	886,393
1938.....	25	5,054	21,366	122	15,341	127,312	147	142	20,395	148,678
1939.....	48	31,102	111,274	74	9,936	113,314	122	120	41,038	224,588
1940.....	65	31,223	68,734	103	29,396	197,584	168	166	60,619	266,318
1941.....	45	38,136	109,069	186	48,955	324,845	231	229	87,091	433,914
1942.....	53	19,670	66,318	301	94,246	383,884	354	352	113,916	450,202
1943.....	111	59,017	204,980	294	159,387	836,218	402	401	218,404	1,041,198
1944.....	46	11,180	28,507	153	64,110	461,632	199	195	75,290	490,139
1945.....	39	27,422	183,102	158	68,646	1,274,318	197	196	96,068	1,457,420
1946.....	42	21,414	43,854	186	118,060	4,472,539	228	225	139,474	4,516,393

30.—Strikes and Lockouts, by Industries, 1945 and 1946

Industry	1945					1946				
	No. of Strikes and Lock-outs	Workers Involved		Time Loss		No. of Strikes and Lock-outs	Workers Involved		Time Loss	
		No.	Per-cent-age	Man-Working Days	Per-cent-age		No.	Per-cent-age	Man-Working Days	Per-cent-age
Agriculture	[1]	–	–	–	–	[1]	–	–	–	–
Logging	[1]	–	–	–	–	2	19,000	13·6	450,000	10·0
Fishing and Trapping	[1]	–	–	–	–	3	800	0·6	8,360	0·2
Mining, etc.[3]	42	27,892	29·0	183,498	12·6	50	27,101	19·4	229,476	5·1
Manufacturing	126	62,788	65·6	1,238,901	85·0	122	86,815	62·3	3,760,299	83·3
Vegetable foods, etc.	2	802	0·8	14,382	1·0	10	1,249	0·9	10,900	0·2
Tobacco and liquors	[1]	–	–	–	–	1	700	0·5	14,650	0·3
Rubber and its products	9	8,607	9·0	34,938	2·4	2	11,571	8·3	807,800	17·9
Animal foods	4	7,221	7·7	33,107	2·3	2	69	[2]	151	[2]
Boots and shoes (leather)	3	67	[2]	420	[2]	4	255	0·2	1,392	[2]
Fur, leather and other animal products	3	344	0·4	4,791	0·3	5	904	0·6	6,445	0·1
Textiles, clothing, etc.	13	4,355	4·6	10,282	0·7	29	12,404	8·9	394,794	8·7
Pulp, paper and paper products	1	278	0·3	556	[2]	2	153	0·1	300	[2]
Printing and publishing	5	283	0·3	6,582	0·5	2	397	0·3	35,800	0·8
Miscellaneous wood products	7	1,868	1·9	8,022	0·6	13	24,899	17·9	710,124	15·7
Metal products	64	36,196	37·7	1,117,117	76·7	44	32,721	23·3	1,705,490	37·8
Shipbuilding	7	2,110	2·2	3,535	0·2	[1]	–	–	–	–
Non-metallic minerals, chemicals, etc	7	557	0·6	2,419	0·1	8	1,493	1·1	72,453	1·6
Miscellaneous products	1	100	0·1	2,750	0·2	[1]	–	–	–	–
Construction	7	380	0·4	2,948	0·2	15	994	0·7	6,995	0·1
Buildings and structures	5	325	0·3	2,848	0·2	12	892	0·6	6,535	0·1
Railway	[1]	–	–	–	–	[1]	–	–	–	–
Bridge	[1]	–	–	–	–	[1]	–	–	–	–
Highway	2	55	0·1	100	[2]	2	90	0·1	438	[2]
Canal, harbour, waterway	[1]	–	–	–	–	1	12	[2]	22	[2]
Miscellaneous	[1]	–	–	–	–	[1]	–	–	–	–
Transportation and Public Utilities	12	4,322	4·5	28,096	1·9	20	3,645	2·6	52,338	1·1
Steam railways	[1]	–	–	–	–	1	73	[2]	73	[2]
Electric railways and local bus lines	4	2,613	2·8	24,668	1·7	4	146	0·1	408	[2]
Other local and highway transport	2	140	0·1	504	[2]	3	118	0·1	322	[2]
Water transport	3	1,386	1·4	2,525	0·2	8	3,161	2·3	50,872	1·1
Air transport	[1]	–	–	–	–	[1]	–	–	–	–
Telegraph and telephone	1	22	[2]	88	[2]	1	4	[2]	10	[2]
Electricity and gas	1	100	0·1	250	[2]	1	81	0·1	526	[2]
Miscellaneous	1	61	0·1	61	[2]	2	62	[2]	127	[2]
Trade	4	445	0·3	3,220	0·2	8	437	0·3	3,743	0·1
Finance	[1]	–	–	–	–	[1]	–	–	–	–
Service	6	241	0·2	757	0·1	9	682	0·5	5,182	0·1
Public administration[4]	[1]	–	–	–	–	4	195	0·1	3,098	0·1
Recreation	1	28	[2]	126	[2]	[1]	–	–	–	–
Business and personal	5	213	0·2	631	0·1	5	487	0·4	2,084	[2]
Totals	**197**	**96,068**	**100·0**	**1,457,420**	**100·0**	**228**[5]	**139,474**	**100·0**	**4,516,393**	**100·0**

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[1] None reported. [2] Less than one-tenth of one per cent. [3] Includes non-ferrous metal smelting. [4] Includes water service. [5] This total is not the sum of the figures given above as one strike involved workers in both logging and manufacturing and miscellaneous wood products.

Section 9.—Wages and Hours of Labour

Subsection 1.—The Regulation of Wages and Hours of Labour

Except as an emergency measure, the regulation of wages and hours of persons in private employment in Canada is within provincial jurisdiction, and all the provinces, except Prince Edward Island, have legislation on the subject. In New Brunswick, wage orders apply only to particular establishments or to particular industries in certain areas. The New Brunswick Minimum Wage Act, 1945, came into force July 1, 1946. The Nova Scotia Male Minimum Wage Act, 1945, has not been proclaimed in force.

In Nova Scotia, the minimum wage law applies only to women, while in Ontario, though the Act applies to both sexes, only one order (relating to the textile industry) applies to men. In Alberta, there are separate orders for men and women and also in British Columbia, but in the latter Province certain orders cover both sexes. In Manitoba, Quebec and Saskatchewan orders apply to both sexes in so far as both are employed in the industries covered.

In Quebec, under the Collective Agreement Act, hours and wages, and also apprenticeship, family allowances and holiday provisions established by a collective agreement voluntarily entered into by employers and trade unions or groups of employees may be generalized by Order in Council in the district covered by the agreement, if the parties are sufficiently representative of the industry. In 1946, new agreements in Quebec, made legally binding for the first time, applied to retail stores at Farnham, Richmond and Melbourné, grocers and butchers at Joliette, garages and service stations at Mégantic, municipal employees (permanent), and employees of the gas and electrical departments at Sherbrooke, woodwork and wooden furniture industry at Ste. Agathe (the last-named was later repealed). An agreement for wholesale trade employees at Sherbrooke was repealed.

The Industrial Standards Acts of Nova Scotia, New Brunswick, Ontario, Saskatchewan and Alberta provide that the wages and hours agreed upon at a conference of representatives of employers and employees called by the Minister of Labour may be made legally binding on the industry in the area concerned. The Nova Scotia Act applies only to construction work and the New Brunswick Act to construction work exceeding $25 in value and to work on motor-vehicles. In Ontario in 1946, schedules of wages and hours were made binding on carpenters at Port Arthur and Fort William, Sarnia, Guelph and Orillia, sheet-metal workers (construction) at Ottawa, barbers at Aylmer and Tillsonburg and vicinity and for employees of retail gasoline service stations at Windsor. In Alberta, schedules for employees of garages and service stations at Medicine Hat and Lethbridge were legalized.

Part II of the Manitoba Fair Wage Act provides similar machinery for fixing wages and hours in any business, trade or undertaking, except agriculture. Up to the present, barbering and hairdressing, printing and engraving, shoe-repairing, wood-sawing, baking, laundering and dry cleaning, road trucking and hauling have been brought within its scope.

Legislation in all provinces, except Prince Edward Island, which applies to mines, factories or, in some cases, to shops, restricts the hours of work of women and young persons or, in some provinces, of all workers. In Nova Scotia, Quebec, Ontario, Alberta and British Columbia, there are also statutes dealing only with hours of work. The Nova Scotia Act is not in force. Several Minimum Wage Acts give authority for the regulation of hours as well as wages.

Minimum Wage Regulations.—Table 31 shows the minimum wage rates in effect in December, 1946, for several classes of establishments in the principal cities. In Alberta, in British Columbia and in Manitoba the rates for men apply throughout the Province. In other provinces, lower rates are in effect outside each of the indicated urban areas of the province. The rates given in the table apply to the hours specified or, except in Montreal and Winnipeg, to the normal work-week of the establishment if less.

The rates in effect under provincial minimum wage legislation at the end of 1941 are summarized in the 1942 Year Book, pp. 714-716 and later changes are given in subsequent editions. The changes made in 1946 are as follows: since June 30, 1946, when the Dominion Wages Control Order ceased to restrict the raising of wages provided the increase is in accordance with a provincial statutory Order, minimum rates have been raised in British Columbia, Nova Scotia, Quebec and Saskatchewan.

In British Columbia, an interim blanket Order increased by 20 p.c. the rates in 37 Orders. Of these Orders some have been replaced and others will later be replaced by revised Orders. In factories, the new weekly rate for experienced workers fixed in 1946 was $15·40* as compared with $14; in shops, $17 as compared with $12·75; in offices, $18 as compared with $15; and in hotels and catering the increase was from $14 to $18. The maximum weekly hours in British Columbia in mines, factories, logging, shipyards, construction, shops, catering and road transport were reduced on July 1, 1946, from 48 to 44.

In Nova Scotia, all minimum rates were increased by $1, making the new minima for experienced women workers $13 in places of 17,000 population or over and $12 in other towns.

In Quebec the new minimum for teachers is $600 yearly instead of $300 and higher minimum rates were fixed for industrial and commercial establishments, offices, road transport, hotels, taverns, lodging houses and for certain miscellaneous occupations. The previous rates for factories and shops of 26, 24, 22 and 20 cents an hour in the four zones of the Province have been raised to 35, 32, 28, and 25 cents an hour.

In Saskatchewan, the weekly rates of $16·80 for cities and $14 for towns have been increased to $18·50 in cities and larger towns and $16 in smaller towns and villages.

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* On Feb. 1, 1947, this minimum was increased to 40 cents an hour.

31.—Minimum Weekly Rates for Experienced Workers in the Principal Cities, December, 1946

Item and Type of Establishment	Halifax[1]	Montreal	Toronto[1]	Winnipeg[2]	Regina	Edmonton[3]	Vancouver[1]
Hours per week	44-48[4]	48–60[5]	48	48	48	48	44[6]
	$	cts. per hour	$	cts. per hour	$	$	$
Factories	13·00	35	12·50	30	18·50	15·00	0·35[7,8]
Laundries, etc	13·00	26[9]	12·50	30	18·50	15·00	0·40[7]
Shops	13·00	35	12·50	30	18·50	15·00	17·00
Hotels, restaurants, etc	13·00	30[10]	0·26[7]	30	18·50	15·00	18·00[8]
Beauty parlours	13·00	35	12·50	30	18·50	15·00	17·10
Theatres and amusement places	13·00	25	12·50	30	0·50[7]	15·00	17·10
Offices	13·00	35	12·50	30	18·50	15·00	18·00

[1] Females only. [2] Females; 35 cents for men. [3] Females; $20 for men 19 years of age or over. [4] Except in theatres and amusement places where they apply to a 48-hour week only and in offices to 48 hours or the usual number if less. [5] 48 hours for factories, except in specified cases, and for offices; 54 hours for shops, beauty parlours, theatres and for women in laundries; 60 hours for hotels. [6] In hotels, beauty parlours, theatres and amusement places rates apply to 40 hours or more; in shops to 39 hours or more; and for offices to 36 hours or more. [7] Per hour. [8] Both men and women. [9] Females; this rate applies to three-quarters of the workers, lower rates to others. [10] Kitchen help, 35 cents; cooks, 40 cents.

Regulation of Hours and Annual Holidays.—The limitations on hours which are imposed by statute or under statutory authority are summarized in the 1942 Year Book, pp. 717-718.

The Ontario Hours of Work and Vacations with Pay Act, 1944, fixed an 8-hour day and a 48-hour week for workers in any industry and in any business or occupation prescribed by regulation. The Act does not apply to persons employed in a managerial, supervisory or confidential capacity and by regulation excluded also are most professions, agriculture, domestic service, employees of railway and steamship companies and of municipal fire departments, stevedores, commercial fishermen and others. The British Columbia Hours of Work Act, as amended in 1946, limits hours in the industries to which it applies to eight in a day and 44 in a week.

In all provinces, longer hours may be worked in an emergency or by permission of the administrative authority.

In Alberta and Saskatchewan, time and one-half is payable for all hours in excess of 48 or of the regular work week, and in British Columbia after 44 hours. In most classes of industrial establishments in Quebec, time and one-half is payable after 48 hours.

Five provinces, Alberta, British Columbia, Ontario, Quebec and Saskatchewan, have provided for a yearly holiday with pay for work people in most trades and industries. This action was taken in 1946 in Alberta, Quebec and Saskatchewan.

The Ontario Act of 1944 provides for one week with pay in each year for employees in industrial undertakings, except professional workers, the funeral directing and embalming business, farming and domestic service.

In Saskatchewan, the Annual Holidays Act, proclaimed July 1, 1946, provides for a holiday of two weeks with pay for all employees, except those in farming, ranching or market gardening.

A week's holiday with pay after a year's employment is given in Quebec under a Minimum Wage Order, in British Columbia by statute, and in Alberta by regulations under the Labour Welfare Act. For employment of less than a year, Quebec grants a half-day for each month. The Order covers most workers but exemptions include domestic servants, farm labourers, workers in seasonal industries, building construction, forest operations, janitors and watchmen.

In Alberta, two weeks' holidays are given to all workers other than coal miners, farm labourers and domestic servants after two years' employment. Coal miners are entitled to one day's holiday with pay for every 23 days worked in any calendar month (22 in February) but not more than two weeks' holiday in a year.

Subsection 2.—Statistics of Wage Rates and Hours for Various Classes of Labour*

Statistics of rates of wages and hours of labour have been collected for many years by the Dominion Department of Labour and were published in the *Labour Gazette* and, later, in annual reports supplementary to the *Labour Gazette*. The first report was issued in 1921 but the records begin in many cases, with the year 1901. The index numbers show the general movement of wage rates for the main industrial groups as well as for individual industries, but these cannot be used to compare wage rates in one industry with another. The statistics are average straight-time wage rates or average piece-work straight-time earnings and therefore do not include over-time or other premium payments.

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* For more detailed information see "Wage Rates and Hours of Labour in Canada", published by the Department of Labour as a supplement to the *Labour Gazette*.

Tables 32 and 33 show the index numbers of wage rates by main industrial groups and by industries. From 1930 to 1933 there was a general decrease in wage rates but increases have been general each year since that time. During the period 1939-45, the rise in wage rates amounted to 41·8 p.c.

32.—Index Numbers of Wage Rates for Certain Main Groups of Industries, 1921-45

(1939=100)

NOTE.—Figures back to 1901 may be obtained from the report "Wage Rates and Hours of Labour in Canada, 1945", published by the Department of Labour as a supplement to the *Labour Gazette.*

Year	Logging	Coal Mining	Metal Mining	Manufacturing	Construction	Water Transportation	Steam Railways	Electric Railways	Telephones	Laundries	General Average
1921.....	102·2	119·4	95·2	95·4	99·9	96·0	95·9	98·6	91·8	97·3	97·5
1922.....	79·6	113·4	88·0	89·2	95·3	86·7	90·3	94·6	87·2	98·2	91·1
1923.....	93·5	113·4	91·9	92·5	97·5	91·5	91·2	95·6	88·6	99·6	93·6
1924.....	105·9	110·3	92·0	93·2	99·4	90·2	91·2	95·7	89·0	99·9	94·8
1925.....	95·2	96·1	93·3	92·3	99·8	90·4	91·2	96·4	89·1	99·0	93·8
1926.....	95·5	96·0	93·2	92·8	100·9	90·2	91·2	96·7	89·7	99·9	94·4
1927.....	97·7	96·3	93·3	94·1	105·0	91·3	97·1	97·5	91·4	100·8	96·4
1928.....	99·0	96·8	93·2	94·8	108·7	91·9	97·1	99·6	93·1	101·6	97·5
1929.....	98·7	96·8	93·8	95·4	115·8	96·1	100·0	101·9	94·2	101·8	99·2
1930.....	97·5	97·1	93·9	95·5	119·1	97·2	100·0	102·3	94·7	102·0	99·9
1931.....	81·5	97·1	92·6	93·1	114·7	93·0	97·5	101·9	95·0	101·5	96·6
1932.....	67·1	94·1	89·7	87·0	104·5	86·5	90·1	98·1	88·6	99·0	89·7
1933.....	57·4	92·8	88·6	82·9	92·5	81·2	88·0	93·8	87·9	97·0	85·1
1934.....	65·7	93·4	90·9	85·2	90·7	80·5	85·0	93·7	93·7	96·1	85·9
1935.....	73·1	95·0	92·6	87·0	93·6	81·1	90·1	94·3	93·0	96·6	88·4
1936.....	80·9	95·1	94·9	89·1	94·2	82·4	90·1	95·2	93·8	97·1	90·0
1937.....	93·9	95·6	99·1	96·1	96·9	92·0	96·0	97·8	98·5	98·3	96·7
1938.....	101·8	100·0	99·6	99·2	99·2	99·1	100·0	99·4	99·7	99·7	99·6
1939.....	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0	100·0
1940.....	104·9	102·1	102·8	104·3	104·5	105·2	100·0	104·9	101·3	105·4	103·9
1941.....	114·0	109·4	112·2	115·2	111·6	113·3	109·4	110·1	106·4	110·5	113·1
1942.....	125·9	113·1	118·7	125·5	118·6	125·8	114·8	114·9	112·0	116·5	122·5
1943.....	143·1	124·8	123·1	136·8[1]	127·7	138·8	125·5	121·2	121·9	127·3	133·7[1]
1944.....	146·1	146·0	125·2	141·4[1]	129·6	142·2	125·5	125·7	122·4	128·9	137·9[1]
1945.....	153·3	146·2	128·2	146·5	131·1	144·6	125·5	126·6	125·6	135·4	141·8

[1] Revised since the publication of the 1946 Year Book.

33.—Index Numbers of Wage Rates, by Industries, 1941-45

(1939=100)

Industry	1941	1942	1943	1944	1945
Logging..	**114·0**	**125·9**	**143·1**	**146·1**	**153·3**
Logging, Eastern Canada............................	114·8	124·9	142·0	143·2	151·4
Logging, Pacific Coast..............................	110·8	129·7	147·5	156·8	160·5
Mining..	**111·2**	**116·6**	**123·7**	**134·8**	**136·5**
Coal mining..	109·4	113·1	124·8	146·0	146·2
Metal mining.......................................	112·2	118·7	123·1	125·2	128·2
Manufacturing.....................................	**115·2**	**125·5**	**136·8**	**141·4**	**146·5**
Primary textile products...........................	119·0	127·8	140·4	146·0	151·5
Cotton yarn and cloth..............................	123·8	128·1	136·6	139·1	148·7
Woollen yarn and cloth.............................	120·1	136·6	152·8	160·3	163·5
Knitting—hosiery, underwear and outer wear........	112·5	123·6	138·5	146·2	150·3
Rayon yarn and fabric..............................	122·9	129·0	141·3	147·0	148·9

33.—Index Numbers of Wage Rates, by Industries, 1941-45—concluded

Industry	1941	1942	1943	1944	1945
Manufacturing—concluded					
Clothing	118·0	129·0	139·3	144·3	156·3
Men's and boys' suits and overcoats	117·9	129·8	146·6	151·9	164·1
Work clothing	118·2	133·3	140·8	141·0	148·0
Women's and misses' suits and coats	126·9	131·8	134·5	137·5	152·7
Dresses	118·8	127·5	133·2	138·9	152·5
Rubber products	117·1	127·1	134·4	139·8	143·4
Pulp and its products	109·5	115·1	120·0	125·7	127·3
Pulp	114·4	124·0	128·6	135·3	136·3
Newsprint	107·7	109·6	115·4	119·6	120·9
Paper other than newsprint	107·5	113·2	120·1	124·7	126·8
Paper boxes	115·5	123·9	128·9	133·1	138·5
Printing and publishing	105·8	110·0	113·6	115·9	118·5
Newspaper printing	105·5	108·3	111·6	115·8	119·1
Job printing and publishing	105·9	110·6	113·8	114·9	117·7
Lumber and its products	117·7	131·0	142·9	148·2	156·1
Sawmill products	115·0	130·7	143·8	148·7	157·5
Furniture	125·0	139·0	147·6	154·8	159·5
Edible plant products	115·0	122·5	130·0	134·2	139·4
Flour	113·9	121·5	133·3	135·0	139·2
Bread and cake	115·5	123·9	128·9	134·3	139·0
Biscuits	114·4	121·8	131·9	135·8	142·0
Confectionery	114·5	118·2	130·0	131·8	139·0
Fur products	113·7	121·7	127·3	130·5	140·5
Leather and its products	122·5	134·8	142·9	145·4	153·5
Leather (tanning)	119·5	133·9	148·9	156·8	167·0
Boots and shoes	123·2	135·0	141·7	142·6	150·1
Meat products	112·7	119·0	135·1	137·3	141·0
Iron and its products	112·9	125·6	138·8	142·6	148·2
Crude, rolled and forged products	108·1	122·2	135·5	143·5	149·1
Foundry and machine shop products	116·0	120·9	137·0	140·8	149·5
Machinery, engines, boilers, tanks, etc	116·2	129·7	141·7	147·9	147·3
Aircraft	109·5	122·7	134·0	138·7	148·7
Shipbuilding (steel ships)	121·2	132·2	144·4	145·3	145·9
Motor-vehicles	108·6	115·8	122·7	126·3	130·3
Motor-vehicle parts and accessories	110·2	127·0	145·7	147·1	148·2
Stoves, furnaces, etc	115·6	131·0	143·5	149·5	155·4
Agricultural implements	117·6	136·7	151·9	155·8	157·5
Tobacco products	113·0	120·4	131·5	140·3	140·5
Beverages (brewery products)	113·3	117·1	121·9	123·5	127·9
Electric current production and distribution	112·0	120·2	129·6	132·5	134·4
Electrical apparatus and supplies	123·2	133·7	149·2	154·1	156·8
Construction	**111·6**	**118·6**	**127·7**	**129·6**	**131·1**
Transportation and Communication	**109·7**	**116·4**	**127·0**	**128·0**	**128·8**
Transportation	110·1	117·0	127·7	128·7	129·2
Water transportation (inland and coastal)	113·3	125·8	138·8	142·2	144·6
Steam railways	109·4	114·8	125·5	125·5	125·5
Electric street railways	109·1	115·8	121·2	125·7	126·6
Communication — telephone	106·4	112·0	121·9	122·4	125·6
Service—Laundries	**110·5**	**116·5**	**127·3**	**128·9**	**135·4**
General Average	**113·1**	**122·5**	**133·7**	**137·9**	**141·8**

34.—Average Wages per Hour for Specified Occupations in Certain Cities, 1945

Industry and Occupation	Halifax	Montreal	Toronto	Winnipeg	Vancouver
	$	$	$	$	$
Construction—					
Bricklayers and masons	1·15	1·06	1·23	1·25	1·29
Carpenters	0·95	0·96	1·11	1·05	1·12
Electrical workers	1·06	1·01	1·21	1·05	1·19
Painters	0·81	0·86	0·97	0·90	0·97
Plasterers	0·95	1·06	1·21	1·25	1·10
Plumbers	1·02½	1·01	1·17	1·15	1·19
Sheet-metal workers	0·85	0·96	1·18	0·85	1·18
Labourers	0·52	0·61	0·67	0·63	0·71
Manufacturing—					
Unskilled factory labour, male	0·59	0·57	0·60	0·55	0·67
Transportation—					
Electric Street Railways—					
One-man car and bus operators[1]	0·81[2]	0·71	0·80	0·79	0·85
Linemen	0·92	0·68	0·93	1·01½	1·13½
Shop and barnmen	0·66–0·95	0·48–0·76	0·68–0·92	0·59–0·89	0·68–0·99½
Electricians	0·92	0·73½	0·89½	0·85	0·92
Trackmen and labourers	0·58–0·71	0·48–0·62	0·60–0·65	0·59–0·69	0·69½–0·73½
Printing and Publishing—					
Compositors—					
News	1·00	1·20	1·35	1·02	1·19
Job	0·82	0·96	0·93	0·93	1·10
Pressmen—					
News	0·68	1·14	1·35	0·98	1·11
Job	0·78	0·90	0·91	0·87	1·06
Bookbinders	0·81	0·91	0·90	0·90	1·05
Bindery girls	0·34	0·38	0·43	0·39	0·54

[1] Maximum rates based on length of service; 5 cents less for two-man car operators in Montreal, Toronto and Winnipeg; in Vancouver 6 cents less. [2] No bus operators.

35.—Average Hourly Wage Rates for Specified Occupations in Manufacturing, by Provinces, 1945

Occupation	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	$	$	$	$	$	$	$	$
Work Clothing—								
Sewing machine operators, female	0·33	0·30	0·38	0·48	0·45	–	0·52	0·47
Cutters, male	0·56	–	0·68	0·78	0·79	–	0·94	0·91
Newsprint—								
Machine tenders	1·83	1·87	1·63	1·63	1·77	–	–	1·73
Finishers	0·62	0·62	0·64	0·65	0·63	–	–	0·73
Wood Products—								
Sawyers	0·47	0·54	0·55	0·63	0·61	0·72	0·62	0·82
Machine hands	0·50	0·52	0·53	0·62	0·68	0·59	0·72	0·76
Meat Products—								
General butchers	0·65	0·69	0·68	0·73	0·71	0·67	0·72	0·76
Motor-truck drivers	0·61	–	0·63	0·67	0·70	0·66	0·73	0·72
Iron and Steel Products—								
Machinists	0·90	0·90	0·87	0·84	0·80	0·76	0·83	1·00
Moulders	0·86	0·96	0·71	0·85	0·74	0·74	0·83	0·99
	Maritime Provinces				Western Provinces			
Woollen Yarn and Cloth—								
Spinners, male	0·50		0·55	0·59	0·60			
Weavers, female	0·39		0·50	0·49	0·42			

36.—Standard or Normal Hours of Labour per Week in Certain Cities, 1945

Industry	Halifax	Montreal	Toronto	Winnipeg	Vancouver
Construction	44-48	44-50	44-50	44-48	40-48
Transportation—					
Electric street railways	44	51	44-48	47	48
Printing and publishing	44-47	44	44-46½	44	40-44

Wages of Farm Labour.—With few exceptions, farm wage rates in Canada during 1946 continued their upward trend. Wages reported in the Maritime Provinces at Aug. 15, 1946, indicated a levelling off or a slight decline from those reported for the same date of 1945, while a weakening of some of the monthly wage rates was evident in the Prairie Provinces. Current rates of wages paid to male hired help on farms have more than doubled since 1940, the year in which the series of wage rates shown in Table **37** was begun. Average wage rates are shown on the basis of rates paid with board provided by the employer and without board. The information is provided by farm correspondents located in all provinces.

37.—Average Wages of Male Farm Help per Day and per Month, as at Jan. 15, May 15 and Aug. 15, 1943-46

NOTE.—Figures for 1940-42 are given at pp. 732-733 of the 1943-44 Year Book.

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	$	$	$	$	$	$	$	$	$	$	$	$
P.E.I.—												
1943	1·64	2·18	32·60	48·16	1·83	2·36	38·45	53·86	1·88	2·44	39·64	53·95
1944	2·03	2·60	41·21	55·00	2·08	2·70	47·66	69·22	2·45	3·10	49·42	69·77
1945	2·18	2·95	45·45	63·50	2·29	2·89	50·19	71·33	2·55	3·36	52·59	76·25
1946	2·39	3·11	49·54	72·06	2·53	3·28	55·76	77·37	2·62	3·38	55·76	77·96
N.S.—												
1943	2·24	2·89	50·73	69·10	2·23	2·90	46·48	64·84	2·57	3·19	47·50	66·25
1944	2·78	3·56	60·87	84·00	2·61	3·40	53·88	76·50	2·94	3·74	55·12	75·44
1945	2·89	3·74	54·41	84·00	3·21	3·88	64·07	88·15	3·43	4·21	69·15	91·44
1946	3·06	3·92	61·23	89·27	3·08	3·99	70·39	98·89	3·24	4·11	67·45	91·57
N.B.—												
1943	2·19	2·80	51·05	67·21	2·27	2·92	56·62	73·92	2·71	3·53	64·33	85·93
1944	2·61	3·33	63·57	81·90	2·91	3·68	63·33	87·97	3·02	3·73	66·83	89·93
1945	3·00	3·85	68·11	90·00	3·15	4·04	75·32	98·86	3·52	4·32	80·63	103·46
1946	3·31	4·31	80·71	105·73	3·33	4·11	76·98	98·85	3·56	4·44	78·61	103·17
Que.—												
1943	1·95	2·63	43·91	61·55	2·11	2·82	47·88	67·27	3·48	4·70	61·70	83·83
1944	2·44	3·20	52·70	74·87	2·47	3·21	56·22	77·08	2·73	3·50	61·04	81·74
1945	2·66	3·43	58·47	80·88	2·74	3·53	59·68	82·16	3·22	4·12	68·83	92·36
1946	2·89	3·79	62·68	86·50	3·10	3·96	68·94	93·96	3·46	4·36	74·48	98·41
Ont.—												
1943	2·36	3·16	46·16	64·95	2·55	3·32	50·69	71·10	4·04	5·73	64·53	89·51
1944	2·72	3·57	51·02	73·01	2·90	3·78	56·39	77·04	3·26	4·09	59·13	79·64
1945	2·87	3·69	53·96	75·88	3·03	3·92	59·86	83·46	3·46	4·36	64·34	87·39
1946	3·04	3·93	57·06	80·51	3·29	4·19	64·80	89·40	3·62	4·55	68·40	92·40
Man.—												
1943	1·82	2·59	35·27	55·17	2·28	3·04	45·58	72·38	3·41	4·20	59·93	80·11
1944	2·27	3·13	43·91	65·10	2·87	3·78	63·89	85·83	4·49	5·53	71·46	91·33
1945	2·41	3·45	50·40	75·84	3·20	3·99	70·01	91·77	3·97	4·98	74·84	97·76
1946	2·64	3·54	49·88	71·97	3·24	4·25	68·75	91·39	4·71	5·66	77·50	102·81
Sask.—												
1943	1·72	2·39	33·80	55·06	2·43	3·30	55·52	76·11	3·42	4·05	59·08	78·19
1944	2·11	3·03	44·00	67·47	2·98	4·00	69·83	93·31	4·58	5·42	75·27	99·49
1945	2·45	3·47	51·12	76·21	3·42	4·35	75·92	99·34	4·00	4·85	77·31	101·92
1946	2·45	3·56	49·87	75·72	3·43	4·49	77·24	102·06	4·71	5·69	82·99	111·13

37.—Average Wages of Male Farm Help per Day and per Month, as at Jan. 15, May 15 and Aug. 15, 1943-46—concluded

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	$	$	$	$	$	$	$	$	$	$	$	$
Alta.—												
1943......	2·04	2·76	42·49	65·04	2·89	3·67	61·84	87·96	3·30	4·19	62·23	88·67
1944......	2·46	3·38	54·63	78·63	2·97	3·78	68·25	93·21	3·78	4·72	72·31	98·16
1945......	2·65	3·51	58·22	82·47	3·20	4·14	74·76	98·33	4·04	4·94	77·19	111·00
1946......	2·76	3·65	60·25	86·01	3·45	4·43	76·16	102·32	4·37	5·17	80·02	106·66
B.C.—												
1943......	2·50	3·62	52·88	76·16	2·72	3·84	57·20	79·98	3·28	4·18	63·71	87·11
1944......	3·07	3·92	60·44	83·04	3·17	4·00	65·47	90·56	3·53	4·39	70·33	95·75
1945......	3·36	4·24	66·13	93·32	3·52	4·43	70·15	103·81	3·85	4·64	76·56	102·92
1946......	3·56	4·50	70·59	100·50	3·80	4·74	79·60	104·05	4·42	5·26	82·63	105·56
Totals—												
1943......	**2·06**	**2·76**	**42·62**	**62·16**	**2·39**	**3·15**	**52·42**	**74·17**	**3·38**	**4·42**	**61·81**	**84·76**
1944......	**2·49**	**3·30**	**50·99**	**73·19**	**2·73**	**3·55**	**61·88**	**84·25**	**3·53**	**4·36**	**65·99**	**88·31**
1945......	**2·76**	**3·61**	**55·61**	**79·70**	**3·04**	**3·89**	**66·88**	**90·60**	**3·55**	**4·43**	**71·68**	**97·22**
1946......	**2·93**	**3·84**	**57·24**	**82·23**	**3·25**	**4·15**	**71·36**	**96·27**	**4·04**	**4·95**	**75·28**	**100·62**

Subsection 3.—Census Data on Earnings and Employment

The total number of wage-earners in Canada reporting earnings for the census year ended June 2, 1941, was 2,769,461, or 98·3 p.c. of all wage-earners 14 years of age or over, and the total amount of their earnings was $2,402,895,700. Of this number, 2,078,734 were males with earnings amounting to $2,064,500,900 or 85·9 p.c. of the total, and 690,727 were females with earnings of $338,394,800. Table 38 gives final figures of total earnings and average earnings by wage-earners in each of the provinces for 1941.

38.—Wage-Earners, 14 Years of Age or Over, by Sex, Together with Total and Average Earnings during the Twelve Months Prior to the Census Date, June 2, 1941, by Provinces.

Note.—Comparable data for the Censuses of 1911, 1921 and 1931 are given at p. 789 of the 1937 Year Book.

Province	Wage-Earners 14 Years or Over		Number Reporting Earnings		Total Earnings		Average Earnings	
	Male	Female	Male	Female	Male	Female	Male	Female
	No.	No.	No.	No.	$	$	$	$
P. E. Island.......	8,934	4,031	8,614	3,940	5,112,800	1,150,400	594	292
Nova Scotia.......	101,626	30,993	99,701	30,540	86,221,500	11,495,600	865	376
New Brunswick...	71,092	22,686	70,002	22,398	53,570,200	8,183,200	765	365
Quebec............	604,025	211,373	594,136	209,185	545,932,500	89,356,700	919	427
Ontario............	818,227	274,320	804,771	270,906	894,925,600	155,544,000	1,112	574
Manitoba..........	117,569	42,365	115,262	41,905	113,370,200	19,182,500	984	458
Saskatchewan.....	94,026	34,553	91,374	33,983	70,396,800	12,699,800	770	374
Alberta...........	108,941	32,897	106,852	32,456	98,157,800	15,419,400	919	475
British Columbia.	192,917	46,223	188,022	45,414	196,813,500	25,363,200	1,047	558
Totals........	**2,117,357**	**699,441**	**2,078,734**	**690,727**	**2,064,500,900**	**338,394,800**	**993**	**490**

Detailed information on earnings and employment of wage-earners, covering the twelve-month period prior to the Census date, June 2, 1941, is given in Vol. VI, Census of Canada 1941, for Canada, the provinces, counties and census divisions, for urban centres of 1,000 population or over and for certain metropolitan areas. Wage-earners are there classified by occupation, industry, conjugal condition, age and sex, earnings and weeks employed. Preliminary data on the number of wage-earners by amount of earnings are available from the 1946 Census of the Prairie Provinces for urban centres of 5,000 population or over in Bulletin 7-6010.

CHAPTER XXI.—TRANSPORTATION AND COMMUNICATIONS

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Canada, nearly 4,000 miles in length from east to west, with the main topographic barriers running in a north-south direction, and a relatively small population of 12,307,000 (1946 estimate) thinly distributed along the southern strip of this vast area, presents unusual difficulties from the standpoint of transportation. Different parts of the country are shut off from each other by areas of rough, rocky forest terrain, such as the region lying between New Brunswick and Quebec, the areas north of Lakes Huron and Superior, dividing the industrial region of Ontario and Quebec from the agricultural areas of the prairies, and the barriers interposed by the mountains of British Columbia. To such a country with a population so distributed and producing mainly for export, as do western agriculturists, or for consumption in distant portions of the country itself, as do manufacturers, cheap transportation is a necessity of life.

In order to appraise the value of each of the agencies of transportation, this Chapter of the Year Book, after treating of Government control over agencies of transportation and communication in Part I, deals with the four main agencies, namely, carriers by rail, road, water and air, in Parts II, III, IV and V, respectively. In each Part the arrangement is intended to show: (1) the plant, equipment and facilities available; (2) the cost to the Canadian people; and (3) the traffic carried or services performed, in so far as statistics are available for each agency.

Scarcely less important, from the social and economic viewpoints, is the development of communications in a country so vast and with population centres so scattered. The Post Office has been a great factor in promoting solidarity among the people of different parts of the Dominion, and this same desirable object is now being further aided by radio. Telegraphs and telephones have done much to annihilate distance—the rural telephone, in particular, being of great social and economic benefit in country districts. The press, assisted by cheap telegraph and cable rates, and by low second-class mail rates to all parts of the country, has been helpful in developing national sentiment. These means of communication are dealt with in Parts VI, VII, VIII and IX.

PART I.—GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION

Section 1.—Government Control Over Agencies of Transportation*

With the modern development of new forms of transportation, it is becoming increasingly important to realize that the several agencies of transportation—carriers by rail, road, water and air—are, or should be, inter-related parts of an integral whole where each agency has its place in the efficient provision of necessary transportation in Canada. The Dominion Department of Transport was organized on Nov. 2, 1936, under authority of c. 34 of the Statutes of 1936, to unify in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology.

The business of transportation and communications is, generally speaking, a 'natural monopoly', i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. For this reason there has been a strong tendency toward consolidation and amalgamation over the past half century. The outstanding example of these consolidations in Canada in recent years is the concentration of control of the railways of the country in the hands of the Canadian Pacific Railway Company and the Canadian National Railways.

Such control inevitably brings with it elements of monopoly and possible overcharge, and it has been deemed advisable in Canada, as in other countries, to set up authorities to control the rates to be charged and the other conditions under which services to the public are to be rendered by common carriers. This control, so far as the railways within the jurisdiction of the Dominion Government are concerned, is now in the hands of the Board of Transport Commissioners. From time to time the regulatory authority of the Commission has been extended to a limited extent to other utilities (see under "Air Transport Board" below).

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* This material has been compiled in co-operation with the Board of Transport Commissioners, the Air Transport Board and the Department of Transport.

Besides the Board of Transport Commissioners, there exist, in several of the provinces, bodies that undertake among their duties the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, established in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities and the Public Utilities Commission of Manitoba. In the three most westerly provinces these same duties are performed by provincial Departments of Railways.

The Board of Transport Commissioners for Canada.—An explanation of the situation that led to the introduction of railway regulation by commission in Canada, as well as other information relating to the organization of the Board, procedure, judgments, etc., is given at pp. 633-634 of the 1940 Year Book.

Powers of the Board.—With regard to transport by rail, these cover matters relating to the location, construction and operation of railways. The most important of these powers has to do with rate regulation. Passenger rates are divided into standard and special; freight rates into standard, special and competitive. Standard rates are maximum rates and the only ones that must be approved by the Board before they are applied. Special and competitive rates, being less than maximum rates, may be applied by railways without the Board's approval, provided that a change of rates has been advertised. Important rate adjustments, however, usually come to the notice of the Commission, for a changed rate alters the extent of the territory in which a shipper can compete and on this account he is likely to appeal the case to the Commission.

By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates was given to the Commission, but with narrower powers than were given to it in dealing with railways. By the Transport Act, 1938, (as amended by 8 Geo. VI, c. 25, 1944, and by an Act passed during the first session, twentieth Parliament, 9 Geo. VI, c. 32, 1945) and since Jan. 15, 1939, following a proclamation of the Governor in Council to that effect, the Board has power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes and the Mackenzie River, as defined in Sect. 2, Subsection 1 (f) and (hh) of the Transport Act, 1938. The Board is required to perform the functions vested in it under the Transport Act and the Railway Act with the object of co-ordinating and harmonizing the operations of all carriers engaged in transport by railways and ships. The Board may require every applicant for a licence under the Transport Act to establish public convenience and necessity to its satisfaction and take into consideration the financial responsibility of a licensee or applicant. The Board may, in the licence, state the ports between which the ships named therein may carry goods or passengers and the schedule of services which shall be maintained; every standard tariff and every amendment and supplement thereto shall require the approval of the Board before it becomes effective.

Air Transport Board.—The responsibilities of the Board of Transport Commissioners relating to the control of civil aviation were transferred to the Air Transport Board by an amendment to the Aeronautics Act (8 Geo. VI, c. 28, 1944), which was proclaimed in effect as from Oct. 31, 1944. The Board is to advise the Minister of Transport on civil aviation; to license all forms of commercial air transport on the basis of public convenience and necessity; and to exercise economic control in the matter of financial responsibility, schedules, rates and charges, insurance and other matters. The organization of the Board comprises the Secretary's Branch, which includes the Administrative and Licensing Divisions, and the Traffic and Research Aeronautical Engineering Branches. The economic analyses, surveys and statistical reports of the Board are prepared in the Bureau of Transportation Economics, established in 1947 under the Board of Transport Commissioners to co-ordinate under one department all economic studies pertaining to air, rail and water transportation in Canada.

Under the 1944 amendment, all commercial air transport flying must be licensed; previously only scheduled services required licensing. Also, an operating certificate, issued by the Civil Aviation Division of the Department of Transport, must be held by the air carrier certifying that he is adequately equipped to operate a safe service.

Amendments to the Aeronautics Act were passed under 9-10 Geo. VI, c. 9, assented to Dec. 15, 1945, extending the definition of a commercial air service to include, "any use of aircraft in or over Canada for hire or reward" and further determined the rights and duties of the Board.

The Board is required, under Section 13 of the Aeronautics Act, to review all licences respecting commercial air services issued prior to the establishment of the Board and, to this end, in collaboration with the Department of Reconstruction and Supply, the Board commenced a Dominion-wide traffic pattern survey in 1945. During 1946, two members of the Board toured and inspected practically all the air services under review and the full Board conducted public hearings across Canada to review evidence and hear representations from the licensees and any interested parties. All the information secured, supplemented by statistical data accumulated by the Board, has now been studied and the Board's report on the Review of Licences was issued early in 1947.

Since its inception, the Board has issued a limited number of licences for new scheduled services and a considerable number for non-scheduled services throughout the Dominion.

Wartime Controls.—During the War, the Government took steps to ensure that the vital transportation requirements of the war effort would be met and many important measures were put into effect. The chief agencies of transportation control were: the Canadian Shipping Board; the Controllers of Ship Repairs; Transport and Transit; the Administrator of the Wartime Prices and Trade Board and the Director of Merchant Seamen. These controls which, with the exception of the Transport Controller and the Merchant Seamen Branch, have now been dissolved, are dealt with in the wartime editions of the Year Book.

Transport Control freight orders governing maximum carloading, and fruit and vegetable regulations affecting refrigerator cars, also orders fixing penalties for prolonged holding of refrigeration, box, gondola, hopper, covered hopper and ballast cars are still in effect. The continued heavy volume of freight traffic moving and the short supply of railway equipment both in Canada and the United States makes this necessary.

Section 2.—Government Control Over Agencies of Communication*

The development and control of radio-communication in Canada from the beginning of the century is outlined at pp. 644-646 of the 1945 Year Book.

The present phase of national radio broadcasting in Canada was entered upon in 1936, when, with the passage of the Canadian Broadcasting Act, 1936, the Canadian Broadcasting Corporation replaced the Canadian Radio Broadcasting Commission (see pp. 737-740). The new Act gave the Corporation much wider powers in the operation of the system, and was modelled very largely along the lines of the Act governing the British Broadcasting Corporation. The technical control of all broadcasting stations reverted to the Minister of Transport, who was also empowered to make regulations for the control of any equipment liable to cause interference with radio reception.

However, pursuant to the provisions of the Public Service Rearrangement and Transfer of Duties Act, and of the War Measures Act, the duties, powers and functions vested in the Minister of Transport under the Radio Act, 1938, and the Canadian Broadcasting Act, 1936, were transferred to the Minister of Munitions and Supply by Orders in Council passed in July and September, 1940. An Order in Council, passed in June, 1941, transferred jurisdiction over the broadcasting activities of the Canadian Broadcasting Corporation to the Minister of National War Services and in October, 1945 (P.C. 6552), it was transferred to the jurisdiction of the Minister of National Revenue. Further Orders in Council in October and November, 1944, transferred the duties, powers and functions in respect to radio, previously vested in the Minister of Munitions and Supply, to the Minister of Reconstruction, and they were again transferred to the Minister of Reconstruction and Supply under the provisions of the Department of Reconstruction and Supply Act, 1945, which was assented to on Dec. 18, 1945.

In addition to being subject to the provisions of the Radio Act, 1938, and of the regulations issued thereunder, the administration of radio in Canada, including broadcasting, is subject to the International Telecommunication Convention (Madrid, Spain, 1932) and the Radio-communication Regulations annexed thereto (Revision of Cairo, Egypt, 1938); as well as to regional agreements such as the Inter-American Radio-communications Convention, the North American Regional Broadcasting Agreement, Havana, Cuba, 1937, the Inter-American Arrangement respecting Radio-communications, including the revision thereto, of Santiago de Chile, January, 1940, and the Third American Radio Conference of Rio de Janeiro, Brazil, September, 1945

PART II.—RAILWAYS†

The treatment of rail transportation is divided into three Sections dealing, respectively, with steam railways, electric railways and express companies.

Section 1.—Steam Railways

The steam railway is the most important transportation agency from the standpoint of investment and of traffic handled and the statistical field is more completely covered for this form of transportation than for any other.

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* Revised by the Department of Transport.

† Revised and checked by G. S. Wrong, Director, Transportation and Public Utilities Division, Dominion Bureau of Statistics. More detailed information is given in the annual reports of the Division. Certain of the financial statistics are compiled in co-operation with the Department of Transport.

Historical.—A brief historical sketch of the development of steam railways in Canada is given at pp. 635-638 of the 1940 Year Book. Other details are given at pp. 616-623 of the 1922-23 Year Book, at pp. 601-603 of the 1926 Year Book and at pp. 694-698 of the 1934-35 Year Book. An article at pp. 648-651 of the 1945 edition deals with the wartime role of the steam railways of Canada.

Subsection 1.—Mileage and Equipment of Steam Railways

Although construction was begun in 1835 on the first railway in Canada—the short link of 16 miles between Laprairie and St. Johns, Que.—there were only 66 miles of railway in operation by 1850. The first great period of construction was in the 1850's when the Grand Trunk and Great Western railways, as well as numerous smaller lines, were built. The building of the Intercolonial and the Canadian Pacific railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building from 1900 to 1917, the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed.

During the past decade, there has been a tendency for railway mileages to decline slightly because of the abandonment of unprofitable lines. Of the 42,352 miles of single track operated in 1945, 21,571 were part of the Canadian National System.

1.—Record of Steam-Railway Mileage, 1900-45

Note.—Corresponding figures of total mileage of single track for the years 1835 to 1899 are given at p. 546 of the 1941 Year Book.

Total Mileage (Single Track)						Mileage, by Provinces				
Year	Miles in Operation	Year	Miles in Operation	Year	Miles in Operation	Type of Track and Province	1931	1936	1941	1945
	No.		No.		No.		miles	miles	miles	miles
						Single Track—				
1900....	17,657	1916..	36,985	1931..	42,280	Prince Edward Island...	286	286	286	286
1901....	18,140	1917..	38,369	1932..	42,409	Nova Scotia..........	1,418	1,397	1,396	1,396
1902....	18,714	1918..	38,252	1933..	42,336	New Brunswick........	1,934	1,871	1,836	1,836
1903....	18,988	1919[1]..	38,329	1934..	42,270	Quebec..................	4,926	4,777	4,789	4,764
1904....	19,431	1919[2]..	38,495	1935..	42,916	Ontario..................	10,905	10,746	10,476	10,480
						Manitoba...............	4,419	4,860	4,854	4,838
1905....	20,487	1920..	38,805	1936..	42,552	Saskatchewan..........	8,268	8,624	8,777	8,782
1906....	21,423	1921..	39,191	1937..	42,727	Alberta.................	5,630	5,687	5,747	5,687
1907....	22,446	1922..	39,358	1938..	42,742	British Columbia.......	4,097	3,907	3,883	3,886
1908....	22,966	1923..	39,654	1939..	42,637	Yukon...................	58	58	58	58
1909....	24,104	1924..	40,059	1940..	42,565	In United States........	339	339	339	339
1910....	24,731	1925..	40,350	1941..	42,441	Totals, Single Track..	42,280	42,552	42,441	42,352
1911....	25,400	1926..	40,350	1942..	42,339					
1912....	26,840	1927..	40,570	1943..	42,346	Second track............	2,688	2,500	2,499	2,487
1913....	29,304	1928..	41,022	1944..	42,336	Industrial track..........	1,606	1,401	1,551	1,684
1914....	30,795	1929..	41,380	1945..	42,352	Yard track and sidings....	10,277	10,239	10,210	10,288
1915....	34,882	1930..	42,047							
						Grand Totals........	**56,851**	**56,692**	**56,701**	**56,811**

[1] As at June 30 for this and previous years.

[2] As at Dec. 31 for this and later years.

Rolling-Stock.—The figures in Table 2 may be supplemented by the statement that between 1920 and 1945, the average capacity of box cars increased from 34·779 tons to 42·459 tons, of flat cars from 33·459 to 43·110 tons, of coal cars from 43·404 tons to 56·590 tons, and of all freight cars from 35·141 tons to 43·905 tons. The average tractive power of the locomotives increased from 31,112 lb. in 1920 to 41,854 lb. in 1945.

2.—Rolling-Stock of Steam Railways, as at Dec. 31, 1939-45

Type	1939	1940	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.	No.	No.
Locomotives							
Passenger	1,174	1,189	1,124	1,197	1,213	893	933
Freight	2,592	2,374	2,339	2,351	2,376	2,640	2,606
Switching	571	709	696	726	731	836	843
Electric	36	36	40	41	44	47	49
Totals, Locomotives	**4,373**	**4,308**	**4,199**	**4,315**	**4,364**	**4,416**	**4,431**
Passenger Cars							
First class	1,874	1,860	1,886	1,973	2,007	1,984	1,965
Second class	252	242	246	259	273	268	263
Combination	371	370	361	364	366	364	356
Immigrant	353	358	371	385	395	380	379
Dining	197	194	182	192	192	196	196
Parlour	244	235	222	205	156	142	142
Sleeping[1]	983	915	901	880	783	789	787
Baggage, express and postal	1,573	1,576	1,553	1,576	1,656	1,658	1,645
Motor-cars	85	83	77	75	73	71	68
Other	455[2]	434[2]	436[2]	433[2]	418[2]	411[2]	410[2]
Totals, Passenger Cars[1]	**6,387**	**6,267**	**6,235**	**6,342**	**6,319**	**6,263**	**6,211**
Freight Cars							
Box	115,492	116,629	112,134	110,916	112,815	117,068	117,886
Flat	11,692	12,049	11,897	11,998	10,870	10,953	10,892
Stock	5,985	5,866	5,753	6,029	6,510	6,471	6,437
Coal	17,770	17,453	17,505	18,106	19,900	21,104	21,340
Tank	402	389	366	362	348	348	343
Refrigerator	6,713	6,534	6,191	6,372	6,424	6,587	6,372
Other	1,964[3]	1,777[3]	1,394[3]	1,528	1,523	1,536	1,499
Totals, Freight Cars	**160,018**	**160,697**	**155,240**	**155,311**	**158,390**	**164,067**	**164,769**

[1] Includes Pullman Co. cars in Canadian service. [2] Includes 3 auto-railers. [3] Includes 1 auto-railer.

Subsection 2.—Finances of Steam Railways

The tables in this Subsection deal with capital liability, capital investment, earnings, operating expenses, employees and their earnings and Government aid to steam railways. However, the presentation of the financial statistics of railways in Canada would not be complete without some detailed consideration of the finances of the Government-owned railways. This is given in the latter part of the Subsection. Further statistics of revenue are included in Table 13, where they are shown in relation to traffic. Statistics of individual railways, covering single-track mileage, capital, earnings and operating expenses, may be found in the annual report "Statistics of Steam Railways of Canada", published by the Bureau of Statistics.

Capital Liability.—The great increase after 1922 in the capital liability of the steam railways of Canada is due to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as part of the capital liability of the railways. The reduction after 1937, brought about by the Canadian National Capital Revision Act (c. 22, 1937), is explained at p. 644 of the 1939 Year Book.

3.—Capital Liability[1] of Steam Railways, 1926-45

NOTE.—Figures for the years 1876 to 1925, inclusive, are given at p. 649 of the 1927-28 Year Book.

Year	Stocks	Funded Debt	Total	Year	Stocks	Funded Debt	Total
	$	$	$		$	$	$
1926....	1,361,758,426	2,144,999,621	3,506,758,047	1936..	1,425,193,791	3,062,411,720	4,487,605,511
1927....	1,330,215,248	2,252,256,367	3,582,471,615	1937..	1,839,619,361	1,534,450,789	3,374,070,150
1928....	1,357,017,703	2,306,554,996	3,663,572,699	1938..	1,836,882,650	1,568,269,672	3,405,152,322
1929....	1,405,622,070	2,497,054,907	3,902,676,977	1939..	1,834,329,209	1,533,373,521	3,367,702,730
1930....	1,431,324,003	2,595,145,308	4,026,469,311	1940..	1,762,473,489	1,617,561,683	3,380,035,172
1931....	1,438,050,759	2,793,971,329	4,232,022,088	1941..	1,697,545,699	1,699,942,865	3,397,488,564
1932....	1,437,489,430	2,934,182,332	4,371,671,762	1942..	1,578,254,765	1,793,579,270	3,371,834,035
1933....	1,438,834,552	2,951,690,468	4,390,525,020	1943..	1,614,936,131	1,741,664,036	3,356,600,167
1934....	1,437,334,152	2,966,505,594	4,403,839,746	1944..	1,636,064,822	1,707,801,676	3,343,866,498
1935....	1,433,849,530	3,026,414,779	4,460,264,309	1945..	1,672,959,689	1,817,720,939	3,490,680,628

[1] Does not include Canadian railway capital owned by Canadian railways.

Capital Investment.—The capital structure of the Canadian National Railways, changed by the Capital Revision Act, 1937, was reduced by $262,770,972 (see p. 644 of the 1939 Year Book). The excess of capital liability as shown in Table 3 over the investments in road and equipment shown in Table 4 is accounted for by loans and advances from the Government to cover deficits of the Canadian National Railways and by the fact that some railway stock issues represented little actual investment in physical property. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other Government Departments, etc.

4.—Capital Invested in Road and Equipment of Steam Railways, 1940-45

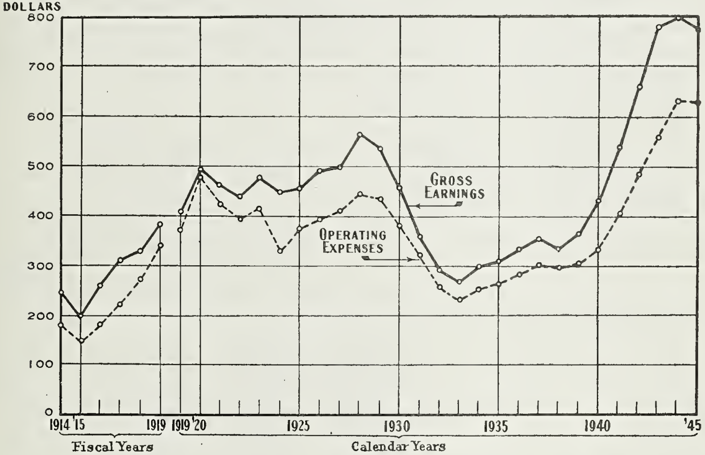
Investment	1940	1941	1942	1943[1]	1944[1]	1945
	$	$	$	$	$	$
New Lines—						
Road..........	1,182	Cr. 422,363	74,972	71,838	Cr. 4,452	2,793,751
Equipment....	Cr. 3,500	–	–	7,935	Cr. 35,570	85,985
General........	7	3,776	–	1,688	252	–
Totals........	Cr. 2,311	Cr. 418,587	74,972	81,461	Cr. 39,770	2,879,736
Additions and Betterments—						
Road..........	6,659,074	8,786,600	46,537,589[2]	Cr. 8,895,492	11,147,929	3,224,843
Equipment....	66,340,262	9,566,002	19,603,725	28,214,476	44,239,856	20,581,957
General........	92,198	Cr. 17,112	Cr. 89	418,705	2,081	Cr. 24,644
Undistributed.	Cr. 17,056	Cr. 265,260	Cr. 11,917	–	–	450
Totals........	73,074,478	18,070,230	66,129,308	19,737,689	55,389,866	23,782,606
Undistributed[3]..	Cr. 9,437,903	Cr. 10,004,302	Cr. 5,878,078	Cr. 4,776,307	1,332,965	Cr. 3,194,164
Totals, Investments as at Dec. 31........	**3,159,573,547**	**3,167,220,888**	**3,227,547,690**	**3,242,589,933**	**3,299,272,994**	**3,322,741,172**

[1] Most of the figures for 1943 and 1944 have been revised since the publication of the 1946 Year Book.
[2] Includes $74,728,521 transferred to depreciation reserve and a credit of $34,534,220 transferred to premium on capital and debenture stocks.
[3] Details of this item are given in the annual report "Statistics of Steam Railways of Canada" issued by Transportation and Public Utilities Division of the Bureau of Statistics.

Earnings and Expenses.—The operating ratio, or ratio of expenses to revenues, of Canadian railways increased from around 70 p.c. to above 90 p.c. between 1917-20, and remained high thereafter. The United States Government took over the operation of the United States railways and increased the rates of pay of the railway employees when that country entered the War of 1914-18. The Canadian railways were also obliged to make corresponding increases and these have been the chief factor in increased operating ratio. Declining revenues without corresponding reductions in expenses during the depression period also maintained the high ratio. The period from 1938 to 1943 showed a sharp decline in this ratio, due primarily to the greatly increased freight traffic occasioned by the War of 1939-45 and a subsequent acceleration in gross earnings. A rising trend was again in evidence in 1944 and 1945.

GROSS EARNINGS AND OPERATING EXPENSES OF STEAM RAILWAYS

1914-45



5.—Earnings and Operating Expenses of Steam Railways, 1936-45

NOTE.—Gross earnings and operating expenses for the years 1875 to 1914 are given at p. 434 of the 1916-17 Year Book. The analyses per mile of line and per train mile go back to 1908 only and are given for 1908 to 1916 at p. 435 of the 1916-17 Year Book. Corresponding figures for the years 1915 to 1925 are given at p. 550 of the 1941 Year Book and for 1926 to 1935 at p. 585 of the 1942 Year Book.

Year	Gross Earnings	Operating Expenses	Ratio of Expenses to Receipts	Per Mile of Line			Freight Train Revenue per Freight Train Mile	Passenger Train Revenue per Passenger Train Mile
				Gross Earnings	Operating Expenses	Net Earnings		
	$	$	p.c.	$	$	$	$	$
1936.......	334,768,557	283,345,968	84·64	7,839	6,634	1,205	5·10	1·79
1937.......	355,103,271	300,652,548	84·67	8,316	7,041	1,275	5·17	1·74
1938.......	336,833,400	295,705,638	87·79	7,888	6,925	963	5·18	1·67
1939.......	367,179,095	304,373,285	82·89	8,604	7,132	1,472	5·48	1·67
1940.......	429,142,659	335,287,503	78·13	10,074	7,870	2,204	5·63	1·97
1941.......	538,291,947	403,733,542	75·00	12,673	9,504	3,169	5·78	2·25
1942.......	663,610,570	485,783,584	73·20	15,659	11,463	4,196	6·53	2·93
1943.......	778,914,565	560,597,204	71·98	18,398	13,241	5,157	6·98	3·68
1944.......	796,636,786	634,774,021	79·68	18,861	15,029	3,832	6·91	3·82
1945.......	774,971,360	631,497,562	81·49	18,331	14,937	3,394	6·92	3·70

6.—Distribution of Operating Expenses of Steam Railways, 1942-45

Item	1942		1943		1944		1945	
	$	p.c.	$	p.c.	$	p.c.	$	p.c.
Way and structures	99,957,948	20·6	120,597,853	21·5	138,250,189	21·8	132,470,385	21·0
Equipment	119,318,819	24·6	130,009,452	23·2	146,692,062	23·1	144,500,231	22·9
Traffic	10,332,990	2·1	10,542,715	1·9	11,146,008	1·8	11,203,744	1·7
Transportation	226,557,608	46·6	261,689,121	46·7	295,852,998	46·6	297,754,037	47·2
General and miscellaneous	29,616,219	6·1	37,758,063	6·7	42,832,764	6·7	45,569,165	7·2
Totals	**485,783,584**	**100·0**	**560,597,204**	**100·0**	**634,774,021**	**100·0**	**631,497,562**	**100·0**

Railway Salaries and Wages.—The number of employees increased during the war years (1945 over 1938) by 41·4 p.c. but salaries and wages increased by 90·6 p.c. The latter rise was due to an increase in time worked per employee as well as to increased rates of pay. Maintenance of equipment employees, on hourly rates, worked 12·4 p.c. more hours and were paid 43·9 p.c. more wages per employee and transportation employees worked an average of 9·5 p.c. more hours for an increase in pay of 39·7 p.c.

7.—Steam Railway Employment and Salaries and Wages, 1936-45

Note.—Corresponding figures for the years 1912-35 are given at p. 551 of the 1941 Year Book.

Year	Employees[1]	Total Salaries and Wages	Average Salaries and Wages	Ratio of Operating Salaries and Wages to—	
				Gross Earnings	Operating Expenses
	No.	$	$	p.c.	p.c.
1936	132,781	182,638,365	1,375	49·9	59·0
1937	133,753	193,557,663	1,447	49·8	58·8
1938	127,747	195,108,351	1,531	52·8	60·2
1939	129,362	200,373,668	1,549	50·3	60·7
1940	135,700	214,505,163	1,581	45·0	57·5
1941	148,746	252,398,865	1,697	42·0	56·0
1942	157,740	291,416,755	1,847	39·6	54·1
1943	169,663	323,801,645	1,908	37·8	52·5
1944	175,095	372,064,613[2]	2,125	42·9	53·8
1945	180,603	371,814,379	2,059	43·8	55·2

[1] Includes employees and wages for "outside operations" amounting to from 3 p.c. to 6 p.c. of total employees and 2 p.c. to 5 p.c. of total salaries and wages.

[2] Includes approximately $10,000,000 wages earned in 1943.

Government Aid to Railways.—In order that the private railways of Canada might be constructed in advance of settlement, as colonization roads, or through thinly settled districts where little traffic was available, it was necessary for Dominion and Provincial Governments and even for municipalities to extend some form of assistance. The form of aid was generally a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land other than for right-of-way were also made.

As the country developed, the objections to the land-grant method became more apparent, and aid was more frequently given in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that system, except those for rolling-stock, have been guaranteed by the Dominion Government. No new land grants or cash subsidies have been advanced by either the Dominion or Provincial Governments since 1939 and the situation, as it existed at Dec. 31, 1940, is set out at pp. 587-588 of the 1942 Year Book.

During the era of railway expansion before the War of 1914-18, Provincial Governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railways. As these bonds mature they are paid off by the Canadian National Railways in large measure through funds raised by the issue of new bonds with Dominion Government guarantee. In this manner bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan and Alberta have been eliminated in recent years.

8.—Railway Bonds Guaranteed by Dominion and Provincial Governments, as at Dec. 31, 1945

Government	Canadian National	Other Railways	Total
	$	$	$
Provincial Governments—			
New Brunswick	622,657	465,000	1,087,657
British Columbia	1,964,275	Nil	1,964,275
Totals, Provincial Governments	2,586,932	465,000	3,051,932
Dominion Government	517,278,212	Nil	517,278,212
Grand Totals	**519,865,144**	**465,000**	**520,330,144**[1]

[1] Does not include $8,410,102 perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National System, on which interest and dividends are guaranteed by the Dominion Government.

Financial Statistics of Government-Owned Railways

A description of the origin and growth of Government-owned railways in Canada is given at pp. 601-603 of the 1926 Year Book. That article describes their consolidation under the Canadian National Railways in 1923. The Hudson Bay Railway is a direct liability of the Dominion Government and has been operated by the Canadian National for the Government since Apr. 1, 1935, but is not included in the data for Canadian National Railways. To Mar. 31, 1946, the total cost of this railway was $33,620,333, exclusive of the expenditure of $6,274,113 on the terminal at Nelson and a loss of $3,650,167 on operation. The operating deficit for the fiscal year 1945-46 was $499,669.

The major portion of Dominion Government investments in railways consists of construction costs of the Intercolonial System, the National Transcontinental Railway and the Hudson Bay Railway, and the purchase price of small railways in the Eastern Provinces. The terminals at Churchill consisting of a grain elevator, a warehouse and docks have been transferred to the National Harbours Board and the investment removed from the railway account. Loans and advances to the Canadian National Railways for payment of operating deficits were charged to the Consolidated Revenue Account of the Dominion and also cleared from the railway account and other adjustments were made under the Canadian National Railways Capital Revision Act, 1937.

The Canadian National Railways Capital Revision Act (c. 22 of the Statutes of 1937) is dealt with at p. 644 of the 1939 Year Book. In the same edition, a table at pp. 644-645 shows a condensed consolidated balance sheet as at Dec. 31, 1936, adjustments authorized by the Capital Revision Act and the revised balance sheet as at Jan. 1, 1937.

9.—Assets of the Canadian National Railways System, as at Dec. 31, 1922 and 1945

Account	Dec. 31, 1922	Dec. 31, 1945	Increase (+) or Decrease (−)
	$	$	$
Investments—			
Road and equipment	1,765,323,644	1,970,804,554	+205,480,910
Improvements on leased railway property	1,492,123	3,019,854	+1,527,731
Sinking funds	4,629,855	839,449	−3,790,406
Deposits in lieu of mortgaged property sold	6,171,808	3,985,633	−2,186,175
Miscellaneous physical property	34,767,914	63,814,190	+29,046,276
Affiliated companies	24,253,323	41,342,144	+17,088,821
Other investments	5,789,464	987,167	−4,802,297
Deferred maintenance funds	Nil	39,000,000	+39,000,000
Totals, Investments	**1,842,428,131**	**2,123,792,991**	**+281,364,860**
Current Assets—			
Cash	14,651,422	28,007,409[1]	+13,355,987
Special deposits	6,139,435	10,916,725	+4,777,290
Loans and bills receivable	11,600	Nil	−11,600
Traffic and car service balances receivable	2,528,622	“	−2,528,622
Net balances receivable from agents and conductors	5,386,673	13,891,323	+8,504,650
Miscellaneous accounts receivable	16,857,420	14,972,723	−1,884,697
Materials and supplies	41,408,999	49,979,115	+8,570,116
Interest and dividends receivable	377,003	712,971	+335,968
Rents receivable	112,269	Nil	−112,269
Other current assets	106,775	7,210,337	+7,103,562
Totals, Current Assets	**87,580,218**	**125,690,603**	**+38,110,385**[2]
Deferred Assets—			
Working fund advances	166,847	371,661	+204,814
Insurance and other funds	352,488	12,425,769	+12,073,281
Pension contract fund	Nil	29,671,000	+29,671,000
Other deferred assets	11,805,962	3,072,290	−8,733,672
Totals, Deferred Assets	**12,325,297**	**45,540,720**	**+33,215,423**
Unadjusted Debits—			
Rents and insurance premiums paid in advance	322,059	92,846	−229,213
Discount on capital stock	634,960	Nil	−634,960
Discount on funded debt	1,919,635	5,702,293	+3,782,658
Other unadjusted debits	12,820,903	2,535,564	−10,285,339
Totals, Unadjusted Debits	**15,697,557**	**8,330,703**	**−7,366,854**
Grand Totals	**1,958,031,203**	**2,303,355,017**	**+345,323,814**

[1] Includes demand loans and deposits. [2] Increase in current liabilities $8,801,945.

Operating Finances of the Canadian National Railways. — Gross revenues, operating expenses and net revenues include only those from steam railway and commercial telegraph operations, but the deficits are for the entire system, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.

Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Dominion Government loans, amounting to $530,832,598, and Government claims for interest, amounting to $43,949,039, were cancelled as liabilities of the Railway and these have been eliminated from Table **10** as fixed charges. Also loans of $270,037,438 for capital and $373,823,120 for deficits were cancelled.

10.—Gross Revenues, Operating Expenses, Net Revenues, Fixed Charges and Deficits of the Canadian National Railways,[1] 1936-45

NOTE.—Appropriations, etc., for the Hudson Bay Railway are not included with these data; although the Railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways. For figures for the years 1911-25, see p. 660 of the 1936 Year Book and for 1926-35, see p. 590 of the 1942 edition.

Year	Gross Operating Revenues	Operating Expenses	Income Available for Fixed Charges	Total Fixed Charges	Net Income Deficit[2] or Credit	Cash Deficit or Credit
	$	$	$	$	$	$
1936............	186,610,489	171,477,690	8,975,091	52,172,437	43,197,346	43,303,394[3]
1937............	198,396,609	180,788,858	11,241,763	53,270,417	42,028,654	42,345,868[3]
1938............	182,241,723	176,175,312	Dr. 1,019,255	53,451,742	54,470,997	54,314,196[3]
1939............	203,820,186	182,965,768	15,248,900	53,488,164	38,239,264	40,095,520[3]
1940............	247,527,225	202,519,813	37,920,718	53,305,288	15,384,570	16,965,044[3]
1941............	304,376,778	237,768,437	58,601,315	53,162,354	Cr. 5,438,961	Cr. 4,016,327
1942............	375,654,544	288,998,675	78,952,433	51,669,935	Cr.27,282,498	Cr.25,063,268
1943............	440,615,954	324,475,669	87,859,084	52,189,536	Cr.35,669,548	Cr.35,639,412
1944............	441,147,510	362,547,044	73,473,733	50,474,480	Cr.22,999,253	Cr.23,026,924
1945............	433,773,394	355,294,048	73,521,185	49,009,507	Cr.24,511,678	Cr.24,756,130

[1] Includes the Central Vermont Railway, Inc. [2] Includes appropriations for insurance fund and excludes interest on Government loans eliminated by the Capital Revision Act, 1937. [3] Contributed by the Dominion Government.

Capital Structure and Debt of Canadian National Railways.—The share capital on Dec. 31, 1922, consisted of $165,627,739 stock of the Grand Trunk Railway held by the Dominion Government and $100,000,600 of the Canadian Northern Railway stock also held by the Dominion Government. There was also outstanding $4,591,975 stock of constituent lines held by the public. Table 11 shows the capital liabilities of the Canadian National Railways other than shareholders' capital. The amounts shown under "Active Assets" represent largely temporary loans and explain the large increases during the war years.

11.—Debt of the Canadian National Railways, as at Dec. 31, 1937-45

NOTE.—Figures for the years 1922-36 are given at p. 591 of the 1942 Year Book.

Year	Funded Debt Held by Public			Government Loans and Advances—	Appropriations for Canadian Government Railways[1]	Grand Total[2]
	Guaranteed by—		Un-guaranteed	Active Assets in Public Accounts		
	Dominion Government	Provincial Governments				
At Organization. Dec.	$	$	$	$	$	$
1922	331,309,904	93,412,807	385,198,150	115,607,457	404,272,030[3]	1,600,020,662
1937..........	970,697,190	73,777,953	177,522,256	62,480,567	16,771,981	1,981,363,775
1938..........	1,004,865,758	67,052,468	178,078,197	48,144,805	16,771,981	1,992,185,600
1939..........	1,053,915,895	38,131,740	171,353,676	45,382,081	16,771,981	2,000,210,121
1940..........	1,000,881,473	38,131,740	160,803,121	113,882,334	16,771,981	2,004,496,438
1941..........	940,171,069	38,131,740	156,091,494	195,345,884	16,771,981	2,014,253,131
1942..........	741,896,436	4,718,822	62,600,816	502,856,461	16,771,981	2,028,137,130
1943..........	685,290,925	2,786,056	56,155,492	537,323,765	16,771,981	2,035,393,793
1944..........	576,585,327	2,702,155	50,166,424	645,103,872	16,771,981	2,050,695,085
1945..........	525,688,314	2,586,932	44,904,751	674,201,613	16,771,981	2,046,123,159

[1] Working capital, the remainder of the account being eliminated (see p. 591 of the 1942 Year Book). [2] Includes Dominion Government Proprietor's Equity beginning at $676,327,701 and capital stock held by the public amounting to $4,584,100 on Jan. 1, 1937, and $777,326,528 and $4,643,040, respectively, on Dec. 31, 1945. Acquisition of small railways with stock outstanding caused a net increase in stock of the system in the hands of the public. [3] Exclusive of $14,529,707 for Hudson Bay Railway on Mar. 31, 1919.

Table 12 has been compiled to reconcile the investments in and loans to the Canadian National Railways (including Canadian Government Railways) as shown in the *Public Accounts* for the fiscal year ended Mar. 31, 1946, with the debt to the Dominion Government shown in the Railways' balance sheet at Dec. 31, 1945, which is covered by Dominion Government Proprietor's Equity, and the columns "Active Assets in Public Accounts" and "Appropriations for Canadian Government Railways" in Table 11.

12.—Reconciliation between the Public Accounts, Mar. 31, 1946, and the Balance Sheet of the Canadian National Railways, Dec. 31, 1945

Item	Public Accounts Mar. 31, 1946	Canadian National Balance Sheet Dec. 31, 1945
	$	$
Canadian Government Railways—		
Capital expenditures	377,614,971	377,614,971
Working capital	16,771,981	16,771,981
Canadian National Railways—		
Dominion Government equity:		
Canadian National Railways capital stock	18,000,000	18,000,000
Canadian National Railways securities trust stock	381,711,557	381,711,557
Temporary loans	682,756,398	674,201,613
Miscellaneous Investments—G.T.R. Stock purchased prior to Confederation—not in C.N.R. balance sheet	121,739	-
Transactions between Dec. 31, 1945 and Mar. 31, 1946:		
Advanced by Dominion Government	-	17,417,993
Repayments by Canadian National Railways	-	Cr. 8,863,208
Expenditure by Dominion not in C.N.R. balance sheet—G.T.R. Stock purchased prior to Confederation	-	121,739
Totals	**1,476,976,646**	**1,476,976,646**

Subsection 3.—Steam Railway Traffic

Passenger and Freight Traffic.—Table 13 shows the passenger and freight statistics for all steam railways for the years 1936-45. A separate analysis is given in Table 14 of the operations and traffic of the Canadian National Railways, since, being controlled by the Dominion Government, the information is considered of special interest.

13.—Statistics of Passenger and Freight Services and Revenue Receipts, 1936-45

NOTE.—Corresponding figures for 1910-15 are given at pp. 628-629 of the 1922-23 Year Book, for 1916-30 at pp. 652-653 of the 1937 Year Book and for 1931-35 at pp. 592-593 of the 1942 Year Book.

Year	PASSENGERS				
	Revenue Passenger-Train Miles[1]	Passenger-Train Car Miles[1]	Passengers Carried[2]	Passengers Carried One Mile	Passengers Carried One Mile per Mile of Line
	No.	No.	No.	No.	No.
1936	33,221,771	274,668,982	20,497,616	1,726,058,974	40,415
1937	36,598,153	290,836,907	22,038,709	1,929,442,930	45,184
1938	36,274,204	285,004,367	20,911,196	1,783,177,557	41,760
1939	36,526,808	284,259,591	20,482,296	1,751,973,333	41,053
1940	37,293,721	296,077,068	21,969,871	2,176,467,876	51,090
1941	39,947,184	337,144,753	29,779,241	3,205,541,530	75,467
1942	43,271,994	395,118,691	47,596,602	4,989,295,894	117,728
1943	45,745,039	433,828,200	57,175,840	6,525,064,000	154,122
1944	46,575,706	450,042,986	60,335,950	6,873,188,000	162,729
1945	47,067,607	447,822,527	53,407,845	6,380,155,000	150,917

For footnotes, see end of table, p. 669.

13.—Statistics of Passenger and Freight Services and Revenue Receipts, 1936-45—concl.

Year	PASSENGERS-concluded				
	Average Receipts per Passenger Mile	Average Receipts per Passenger	Average Passenger Journey	Average Passengers per Train	Passenger-Train Revenue per Passenger-Train Mile
	cts.	$	miles	No.	$
1936	2·08	1·75	84	52[3]	1·79
1937	2·02	1·76	88	53	1·74
1938	2·07	1·77	85	49	1·67
1939	2·06	1·76	86	48	1·67
1940	1·96	1·94	99	58	1·97
1941	1·86	2·01	108	80	2·25
1942	1·83	1·92	105	115	2·93
1943	1·90	2·16	114	143	3·68
1944	1·92	2·18	114	148	3·82
1945	1·96	2·34	120	136	3·70

Year	FREIGHT				
	Revenue Freight-Train Miles	Revenue Freight-Train Car Miles[3]	Freight Carried[4]	Freight Carried One Mile	Freight Carried One Mile per Mile of Line
	No.	No.	tons	tons	tons
1936	50,219,782	1,795,275,640	75,846,566	26,414,113,720	618,482
1937	52,349,342	1,881,712,546	82,220,374	26,926,054,021	630,557
1938	49,432,589	1,769,787,848	76,175,305	26,834,696,695	628,433
1939	52,231,620	1,944,530,366	84,631,122	31,464,991,270	737,299
1940	59,438,226	2,272,551,025	97,947,541	37,898,196,157	889,608
1941	72,847,697	2,848,006,314	116,808,091	49,982,478,000	1,176,723
1942	77,080,637	2,968,594,473	134,674,537	56,153,953,000	1,325,011
1943	81,443,279	3,132,419,669	153,314,264	63,915,074,000	1,509,674
1944	83,564,629	3,297,475,933	155,326,332	65,928,078,000	1,560,908
1945	80,712,589	3,189,311,345	147,348,566	63,349,095,000	1,498,465

Year	Freight Receipts per Ton per Mile	Receipts per Ton Hauled	Average Length of Freight Haul	Average Train Load, Revenue Tons	Average Load per Loaded Car Mile	Revenue per Freight-Train Mile
	cts.	$	miles	tons	tons	$
1936	0·969	3·38	348	526	24·73	5·10
1937	1·005	3·29	327	514	23·90	5·17
1938	0·954	3·36	352	543	25·59	5·18
1939	0·909	3·38	372	602	27·28	5·48
1940	0·882	3·41	387	638	28·39	5·63
1941	0·843	3·61	428	686	29·71	5·78
1942	0·896	3·74	417	729	30·71	6·53
1943	0·890	3·71	417	785	32·75	6·98
1944	0·876	3·72	424	789	32·70	6·91
1945	0·882	3·79	430	785	32·57	6·92

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[1] Includes express, baggage, mail, etc., cars. [2] Duplications included. [3] Includes caboose miles and excludes miles made in passenger and non-revenue trains. [4] Duplications eliminated; see Table **15** for details of freight carried.

Mileage and Traffic of the Canadian National Railways.—At Dec. 31, 1945, steam railway track mileage of the C.N.R. (including lines in the United States but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was 23,535. Including the Thousand Islands Railway, 4·51 miles, and the Muskegon Railway and Navigation Co., 5·25 miles, controlled but separately operated, the total steam mileage was 23,545. Including 115·4 miles of electric lines, the grand total was 23,660 miles.

14.—Train Traffic Statistics[1] of the Canadian National Railways (Canadian and United States Lines) 1944 and 1945

Item		1944	1945
Train Mileage—			
Passenger trains	No.	24,216,998	24,600,264
Freight trains	"	45,206,361	43,381,957
Totals, Train Miles[2]	**No.**	**69,423,359**	**67,982,221**
Passenger-Train Car Mileage—			
Coaches and combination	No.	97,134,658	88,784,979
Motor unit cars	"	1,042,610	972,725
Parlour, sleeping and dining cars	"	70,473,514	73,033,000
Baggage, mail, express, etc.	"	73,529,980	76,592,295
Totals, Passenger-Train Car Miles[2]	**No.**	**242,180,762**	**239,382,999**
Freight-Train Mileage—			
Loaded freight-car miles	No.	1,202,394,088	1,174,010,548
Empty freight-car miles	"	555,869,244	528,632,862
Caboose miles	"	45,488,480	44,159,917
Totals, Freight-Train Car Miles[2]	**No.**	**1,803,751,812**	**1,746,803,327**
Passenger Traffic—			
Passengers carried (earning revenue)	No.	35,928,212	30,370,680
Passengers carried (earning revenue) one mile	"	3,696,546,316	3,338,197,658
Passenger-train miles per mile of road	"	1,031	1,047
Average passenger journey	miles	102·9	109·9
Average amount received per passenger	$	1·94210	2·14680
Average amount received per passenger mile	$	0·01888	0·01953
Average passengers per train mile	No.	152·6	135·7
Average passengers per car mile	"	37·6	37·2
Total passenger-train earnings per train mile	$	4·02	3·83
Total passenger-train revenue per mile of road	$	4,335·46	4,007·02
Freight Traffic—			
Revenue freight carried	tons	80,851,179	79,941,296
Revenue freight carried one mile	"	36,015,898,732	34,599,518,473
Revenue freight carried one mile per mile of road	"	1,526,753	1,472,423
Total (all classes) freight carried one mile per mile of road	"	1,641,004	1,589,767
Average tons revenue freight per train mile	No.	797	798
Average tons (all classes) freight per loaded car mile	"	32·07	31·83
Average hauls revenue freight	miles	445·5	432·8
Freight revenue per train mile	$	7·11	7·30
Freight revenue per mile of road	$	13,686·93	13,470·44
Freight revenue per ton	$	3·98	3·96
Freight revenue per ton mile	$	0·01	0·01

[1] Excludes electric lines. [2] Work service excluded.

Commodities Hauled.—Revenue freight hauled by the railways reached a peak in 1944 at 155,326,332 tons and declined in 1945 to 147,348,566 tons but the average haul increased from 424 to 430 miles and consequently the ton miles showed a smaller decline. The large decreases occurred in crude petroleum, gasoline and petroleum oils, which were moved in large quantities between United States stations and through Canada in 1942, 1943 and 1944. The movement of automobiles for war purposes also affected the rail traffic in this group and caused a reduction in 1945; coal declined by 1,915,366 tons or 8·4 p.c.

15.—Commodities Hauled as Freight on Steam Railways, 1941-45

NOTE.—In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National System, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

Group and Product	1941	1942	1943	1944	1945
	tons	tons	tons	tons	tons
Agricultural Products					
Wheat	14,859,532	11,564,297	13,371,658	19,166,310	18,902,873
Oats	1,121,167	1,338,866	3,034,224	3,274,128	3,665,012
Other grain	2,104,127	2,809,175	4,721,579	4,263,697	4,294,454
Flour	2,050,042	2,046,132	2,352,518	2,438,640	2,621,881
Other mill products	2,188,690	2,590,758	3,360,673	3,416,639	3,538,199
Other agricultural products	3,381,282	3,788,123	4,136,586	4,716,705	4,803,909
Totals, Agricultural Products	**25,704,840**	**24,137,351**	**30,977,238**	**37,276,119**	**37,826,328**
Animal Products					
Live stock	907,794	960,217	1,153,591	1,383,003	1,441,491
Meats and other edible packing-house products	936,131	1,148,516	1,219,789	1,422,365	1,233,710
Other animal products	877,024	1,073,037	1,104,359	1,156,657	1,052,580
Totals, Animal Products	**2,720,949**	**3,181,770**	**3,477,739**	**3,962,025**	**3,727,781**
Mine Products					
Coal, anthracite	3,512,795	4,676,540	4,720,325	4,499,947	3,506,113
Coal, bituminous	13,426,524	15,259,888	15,871,518	14,870,676	13,599,473
Coal, sub-bituminous	[1]	[1]	[1]	[1]	1,824,055
Coal, lignite	2,813,694	3,448,824	4,092,255	3,450,644	1,976,310
Coke	1,854,604	2,010,738	2,475,789	2,338,440	2,711,620
Ores and concentrates	8,827,177	9,832,283	10,587,950	9,472,768	8,161,513
Base bullion, matte, pig and ingot (non-ferrous metals)	1,562,592	1,775,987	1,704,282	1,474,859	1,509,002
Sand and gravel	2,170,254	2,107,223	1,782,136	1,704,796	1,919,592
Stone (crushed, ground, broken)	1,820,400	1,978,967	2,116,817	2,179,283	2,218,017
Other mine products	5,441,155	7,963,445	10,961,889	7,238,915	6,064,692
Totals, Mine Products	**41,429,195**	**49,053,895**	**54,312,961**	**47,230,328**	**43,490,387**
Forest Products					
Logs, posts, poles, piling	1,347,945	1,337,824	1,225,255	1,279,317	1,235,585
Cordwood and other firewood	949,845	1,007,915	1,223,932	1,437,240	1,115,396
Pulpwood	3,059,082	3,746,150	4,100,022	4,631,222	5,428,452
Lumber, timber, box, crate and cooperage material	6,368,720	6,910,943	6,296,116	6,438,991	6,366,457
Other forest products	778,186	695,092	593,459	769,390	624,879
Totals, Forest Products	**12,503,778**	**13,697,924**	**13,438,784**	**14,556,160**	**14,770,769**
Manufactures and Miscellaneous					
Gasoline and petroleum products	2,882,563	7,476,092	11,251,125	12,344,731	8,056,963
Iron and steel (bar, sheet, structural pipe)	3,108,723	3,987,716	3,686,936	2,917,205	2,780,032
Automobiles, trucks and parts	2,571,901	2,367,171	3,122,876	2,745,277	2,043,343
Newsprint paper	2,850,056	2,786,815	2,869,793	2,854,971	2,890,982
Wood-pulp	1,720,216	1,871,289	1,941,248	1,749,315	1,827,339
Other manufactures and miscellaneous	18,427,704	23,047,926	24,823,147	26,110,938	26,272,861
Merchandise (all L.C.L. freight)	2,888,166	3,066,588	3,412,417	3,579,263	3,661,781
Totals, Manufactures and Misc.	**34,449,329**	**44,603,597**	**51,107,542**	**52,301,700**	**47,533,301**
Grand Totals	**116,808.091**	**134,674,537**	**153,314,264**	**155,326,332**	**147,348,566**

[1] Included with lignite prior to 1945.

Railway Accidents.—All injuries to passengers are included in Tables **16** and **17** but only injuries that keep the employee from his work for at least three days during the ten days following the accident are recorded for employees. "Others" in Table **16** include trespassers walking along tracks, stealing rides, etc., also persons crossing tracks at level crossings.

16.—Passengers, Employees and Others Killed or Injured on Steam Railways, 1936-45

NOTE.—For the years ended June 30, 1888 to 1900, see Canada Year Book, 1910, p. 378; for the years 1901 to 1919, the 1922-23 edition, p. 635; for 1920 to 1935, the 1938 edition, p. 662.

Year	Passengers		Employees		Others		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1936	6	691	93	6,338	282	703	381	7,732
1937	5	426	77	5,774	265	729	347	6,929
1938	4	351	54	4,961	237	568	295	5,880
1939	1	362	58	5,170	240	583	299	6,115
1940	6	378	59	6,231	235	606	300	7,215
1941	10	652	106	7,999	287	895	403	9,546
1942	44	779	120	10,008	279	743	443	11,530
1943	9	546	130	12,667	202	706	341	13,919
1944	8	562	103	13,187	242	630	353	14,379
1945	10	499	98	13,147	246	705	354	14,351

These accidents include all accidents in which railway trains were involved and accidents on railway property. The classification of accidents used in the Bureau's vital statistics treats collisions between motor-vehicles and trains as motor-vehicle accidents; provincial statistics also class them as motor-vehicle accidents and, consequently, adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor-vehicle.

17.—Persons Killed or Injured on Steam Railways, 1943-45

Class of Person and Description of Accident	1943		1944		1945	
	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.
	In Accidents Resulting from Movement of Trains, Locomotives or Cars					
Class of Person—						
Passengers	9	417	8	416	10	360
Employees	112	2,942	81	2,637	71	2,665
Trespassers	82	106	89	85	102	102
Non-trespassers	115	447	140	398	129	471
Postal clerks, expressmen, etc.	Nil	33	2	12	Nil	12
Totals	**318**	**3,945**	**320**	**3,548**	**312**	**3,610**
Description of Accidents (Employees and Passengers only)—						
Coupling and uncoupling	7	182	5	160	7	172
Collisions	31	226	11	173	13	189
Derailments	6	147	12	62	6	163
Locomotives or cars breaking down	3	8	3	17	Nil	1
Falling from trains or cars	19	259	14	220	11	158
Getting on or off trains	6	666	9	678	4	660
Struck by trains, etc.	27	72	15	58	30	69
Overhead and other obstruction	Nil	37	2	30	1	38
Other causes	22	1,762	18	1,655	9	1,575
Totals	**121**	**3,359**	**89**	**3,053**	**81**	**3,025**
	In Accidents Other Than Those Resulting from Movement of Trains, Locomotives or Cars					
Class of Person—						
Stationmen	2	1,409	1	1,395	1	1,499
Shopmen	5	3,770	3	4,134	5	3,750
Trackmen	8	3,212	10	3,150	15	3,363
Other employees	3	1,334	8	1,871	6	1,870
Passengers	Nil	129	Nil	146	Nil	139
Others	5	120	11	135	15	120
Totals	**23**	**9,974**	**33**	**10,831**	**42**	**10,741**

Section 2.—Electric Railways

Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville and was established early in June, 1886 (it is recorded that it was in active operation before June 11).

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In the cities of Eastern Canada, electric street railways are generally operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the street railways are owned and operated by the municipalities.

Subsection 1.—Equipment of Electric Railways

The single overhead-trolley system is used by all electric railways but Edmonton, Montreal and Winnipeg have begun to use also a double overhead trolley and trackless trolley-buses (67 of these buses being in service in 1945). Of the 33 systems, 23 operated both electric cars and motor-buses in 1945, the buses numbering 1,454. The main advantage of the bus is that it is not confined to a fixed route and, in the case of both motor-buses and trolley-buses, the expense of track maintenance is eliminated.

A summary of the equipment operated by electric railway companies is given in Table **18**.

18.—Equipment of Electric Railways, 1942-45

Item	1942	1943	1944	1945	Item	1942	1943	1944	1945
	No.	No.	No.	No.		No.	No.	No.	No.
PASSENGER VEHICLES—					OTHER VEHICLES—				
Closed cars	3,294	3,303	3,350	3,361	Baggage, express and mail cars	20	19	19	19
Open cars	8	8	4	4	Freight cars	150	163	165	165
Combination passenger and baggage	8	8	8	7	Locomotives	51	52	53	53
Cars without electrical equipment	139	139	138	131	Snow ploughs	72	70	77	75
Motor-buses	1,282	1,329	1,444	1,454	Sweepers	147	148	148	149
Trackless trolley-buses	38	41	42	67	Trucks	123	163	147	148
					Miscellaneous	209	202	194	206
TOTALS, PASSENGER VEHICLES	4,769	4,828	4,986	5,024	TOTALS, OTHER VEHICLES	772	817	803	815

Subsection 2.—Finances of Electric Railways

When electric railways have ceased to operate because of either a decline in traffic or the substitution of motor-buses, their statistics have been excluded from the following table. Consequently, fluctuations in revenues, etc., have been affected by variations in traffic and also by changes in the mode of local transportation. Despite these changing conditions, the gross revenues of electric railways have continued to increase since the low point reached in 1933, and very marked increases have been shown each year since 1940.

19.—Financial Statistics of Electric Railways, 1936-45

Note.—Available figures for the years 1901-1907 are given at pp. 608 and 609 of the 1926 Year Book; for the years 1908-1918 at pp. 681 and 682 of the 1936 Year Book; and for 1919-1935 at p. 665 of the 1938 Year Book.

Year	Capital Liability			Investment in Road and Equipment	Gross Earnings	Operating Expenses	Ratio of Expenses to Receipts	Employees	Salaries and Wages
	Stocks	Funded Debt	Total						
	$	$	$	$	$	$	p.c.	No.	$
1936.....	36,727,740	168,334,613	205,062,353	214,820,798	41,391,927	28,807,311	69·60	14,280	18,958,831
1937.....	36,727,740	169,045,069	205,772,809	208,938,656	42,991,444	29,545,641	68·72	14,347	19,778,118
1938.....	36,727,740	167,878,751	204,606,491	212,643,544	42,537,767	29,683,131	69·78	14,323	20,100,533
1939.....	39,668,660	164,912,746	204,581,406	198,481,728	42,864,150	29,605,328	69·07	14,061	19,716,985
1940.....	38,786,423	161,396,724	200,183,147	203,869,891	47,311,009	32,624,012	68·96	14,204	20,649,358
1941.....	37,665,091	155,867,823	193,532,914	201,279,871	55,334,647	37,030,823	66·92	14,801	23,193,704
1942.....	37,616,432	151,523,248	189,139,680	205,989,595	69,034,130	43,473,516	62·97	16,051	27,923,343
1943.....	37,492,392	147,433,845	184,926,237	204,586,208	80,027,414	54,548,335	68·16	17,896	33,975,281
1944.....	37,540,432	142,364,766	179,905,198	202,666,204	84,730,173	58,202,151	68·69	19,034	36,845,152
1945.....	37,329,194	142,384,083	179,713,277	205,026,475	88,939,451	64,533,940	72·56	20,091	39,364,771

Subsection 3.—Electric Railway Traffic

The passenger mileage travelled by electric cars in 1945 amounted to 127,954,458, by trackless trolley-buses 2,168,204 and by motor-buses 45,375,858. The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years due to increased traffic resulting from improved conditions, and the curtailment of passenger automobile traffic as a result of the War. The 1,316,571,540 passengers carried in 1945 was by far the greatest traffic ever handled by these systems, the increase over 1944 being 5·4 p.c.

20.—Statistics of Electric Railway Operations, 1936-45

Note.—Figures will be found at p. 676 of the 1933 Year Book for the years 1901 to 1910; at p. 681 of the 1936 Year Book for the years 1911 to 1918; and at p. 667 of the 1938 Year Book for 1919 to 1935.

Year	Miles of Road		Electric Car and Bus Mileage			Fare Passengers Carried[1]	Freight Carried[1]
	Total	With Double Track	Passenger	Other	Total		
	miles	miles	miles	miles	miles	No.	tons
1936.......	1,247·09	552·77	119,779,505	2,465,384	122,244,889	614,890,897	2,265,023
1937.......	1,221·88	548·90	122,750,869	2,559,953	125,310,822	631,894,662	2,612,928
1938.......	1,154·50	538·66	123,201,830	2,221,392	125,423,222	629,778,738	2,151,309
1939.......	1,083·49	508·56	121,528,380	2,287,878	123,816,258	632,533,152	2,313,748
1940.......	1,040·04	495·64	125,886,523	2,367,910	128,254,433	691,737,901	2,599,007
1941.......	1,028·24	491·43	134,832,228	2,746,314	137,578,542	795,170,569	3,265,449
1942.......	1,017·24	488·01	152,518,129	2,852,757	155,370,886	996,208,535	3,711,468
1943.......	1,019·29	487·91	164,050,357	2,773,462	166,823,819	1,177,003,883	3,751,785
1944.......	1,019·69	490·17	169,421,343	2,756,755	172,178,098	1,249,707,399	3,769,959
1945.......	1,015·54	488·30	175,498,520	2,777,976	178,276,496	1,316,571,540	3,639,989

[1] Including passengers and freight carried on buses and trackless trolley-buses operated by electric railways.

21.—Passengers, Employees and Others Killed or Injured on Electric Railways, 1936-45

NOTE.—Figures for years ended June 30, 1900-18 are given at p. 611 of the 1926 Year Book and for the calendar years 1919-35 at p. 667 of the 1938 Year Book.

Calendar Year	Passengers		Employees		Others		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1936	Nil	1,503	2	280	41	651	43	2,434
1937	"	1,566	2	364	43	679	45	2,609
1938	1	1,712	1	314	34	605	36	2,631
1939	1	2,039	3	353	33	764	37	3,156
1940	1	2,263	2	363	39	847	42	3,473
1941	1	2,508	5	423	60	1,002	66	3,933
1942	2	3,157	3	489	86	1,338	91	4,984
1943	Nil	4,301	2	722	78	1,491	80	6,514
1944	3	3,980	7	835	88	1,556	98	6,371
1945	2	4,092	3	944	104	1,592	109	6,628

Section 3.—Express Companies

Express service is an expedited freight service on passenger trains, but express companies do not own the means of performing their services; they use railway facilities by virtue of contracts with the railway companies. Express companies in Canada have had close relations with the railways practically from the beginning.

Goods are sent by express for quick transit, so that express rates do not generally compete with freight rates. Thus, in its first tariff the Dominion Express Co., in pursuance of its contract with the Canadian Pacific Railway, gave a rate of 2½ times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue. The rates paid by the shipper are subject to the approval of the Board of Transport Commissioners. Express companies are all organized under powers conferred by Acts of the Dominion Parliament and their business consists in the expeditious shipment of valuable live stock, and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels, and the issue of money orders, travellers cheques, letters of credit and other forms of financial paper.

Express Company Operations.—Four express organizations operate in Canada—three Canadian and one American. The Canadian Pacific Express Co., formerly the Dominion Express Co., is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National system and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Inc., operates over the Canadian sections of United States railways and over the route from Skagway to points in Yukon. No statistics are available regarding the volume of traffic carried by express. Much of the traffic, of course, consists of parcels and small lots which would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables and other perishable commodities.

The amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter, are shown in Table 22 under the heading "Express Privileges".

22.—Mileages Operated, Revenues and Expenses of Express Companies, 1936-45

Note.—Corresponding figures for the years ended June 30, 1911 to 1918, are given at p. 673 of the 1927-28 Year Book, and for the years 1919 to 1935 at p. 669 of the 1938 edition.

Year or Company	Mileages Operated[1]	Gross Earnings	Operating Expenses	Express Privileges	Net Operating Revenues
	No.	$	$	$	$
1936	63,147	17,169,315	9,414,746	7,478,874	275,695
1937	62,634	17,937,567	9,878,443	7,749,711	309,413
1938	65,024	17,674,477	10,325,329	7,417,127	−67,979
1939	65,390	19,410,091	10,622,936	8,313,218	473,937
1940	65,184	26,067,019	11,095,071	12,650,274	2,321,674
1941	53,359	22,933,227	12,202,191	10,113,218	617,818
1942	52,824	25,725,512	13,391,508	11,388,477	945,527
1943	52,670	32,875,971	15,824,160	15,323,905	1,727,906
1944	50,668	34,357,760	18,856,659	15,301,512	199,589
1945	50,938	37,171,862	20,040,339	16,711,647	419,876
1945					
Canadian National Express	24,011	18,897,028	10,279,879	8,379,844	237,305
Canadian Pacific Express	21,624	16,855,505	9,104,242	7,603,143	148,120
Northern Alberta Railways	928	351,368	151,525	172,228	27,615
Railway Express Agency	4,376	1,067,961	504,693	556,432	6,836

[1] Over railways, boat lines and motor-carrier and aircraft routes.

23.—Business Transacted by Express Companies in Financial Paper, 1941-45

Description	1941	1942	1943	1944	1945
	$	$	$	$	$
Money orders, domestic and foreign	72,051,923	84,155,112	96,662,065	101,819,945	101,257,845
Travellers cheques, domestic and foreign	1,305,132	1,116,870	1,324,422	1,729,925	2,228,722
"C.O.D." cheques	5,457,460	6,773,454	8,916,597	11,113,936	13,282,676
Telegraphic transfers	103,768	112,088	1,571,063	1,229,742	1,300,822
Other forms	502,254	980,531	Nil	Nil	Nil
Totals	**79,420,537**	**93,138,055**	**108,474,147**	**115,893,548**	**118,070,065**

PART III.—ROAD TRANSPORTATION*

Since the recent development of highways in Canada has been almost exclusively for the purpose of providing roadbed for motor-vehicle traffic, highways and motor-vehicles are treated as related features of transportation. After an introductory section, which briefly summarizes provincial regulations regarding motor-vehicles and motor traffic, the whole subject of road transportation is dealt with under the headings of facilities, finances and traffic, similar to the treatment extended to other forms of transportation.

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* Except as otherwise indicated, the material in this Part has been revised by G. S. Wrong, Director, Transportation and Public Utilities Division, Dominion Bureau of Statistics.

Section 1.—Provincial Motor-Vehicle and Traffic Regulations†

NOTE.—In this Section, it is obviously impossible to include the great mass of detailed regulations in force in each province. The purpose in view is to provide only the more important general information. The sources of information for detailed regulations for specific provinces are given at pp. 678-679.

General.—The licensing of motor-vehicles and the regulation of motor-vehicle traffic lies within the legislative jurisdiction of the Provincial Governments in Canada. Regulations that are common to all the provinces are summarized here:—

Operator's Licences.—The operator of a motor-vehicle must be over a specified age (usually 16 years) and must carry a licence, obtainable only after prescribed qualification tests and renewable annually. Special licences are required for chauffeurs and, in some cases, for those granted licences who have not reached the specified age.

Motor-Vehicle Regulations.—In general, all motor-vehicles and trailers must be registered annually, with the payment of specified fees, and must carry two registration plates, one on the front and one on the back of the vehicle (one only for the back, in the case of trailers). In order to conserve metal for war purposes, most of the provinces and both territories have issued only one licence plate for each vehicle in recent years. A change of ownership of the vehicle must be recorded with the registration authority. However, exception from registration is granted for a specified period (usually at least 90 days) in any year to visiting private vehicles registered in another province or a State that grants reciprocal treatment. Further regulations require a safe standard of efficiency in the mechanism of the vehicle and of its brakes, and provide that equipment include non-glare headlights, a proper rear light, a satisfactory locking device, a muffler, a windshield wiper, and a rear-vision mirror.

Traffic Regulations.—In all provinces, vehicles keep to the right-hand side of the road. Everywhere motorists are required to observe traffic signs, lights, etc., placed at strategic points on highways and roads. Speed limits, usually of 50 miles per hour, are in effect; slower speeds are always required in cities, towns and villages, in passing schools and public playgrounds, at road intersections, railway crossings, or at other places or times where the view of the highway for a safe distance ahead is in any way obscured. Motor-vehicles must not pass a street car that has stopped to take on or discharge passengers except where safety zones are provided. Accidents resulting in personal injury or property damage must be reported to a provincial or municipal police officer and any driver involved must not leave the scene of accident until he has rendered all possible aid and disclosed his name to the injured party.

Penalties.—These ascend in scale from small fines for minor infractions of any of the regulations to a suspension of the operator's driving permit, impounding of the car, or imprisonment for serious infractions, recklessness, driving without an operator's licence, and especially for attempting, while intoxicated, to operate a motor-vehicle.

There is such a wide variation in the different provinces regarding the basis of licences and fees, the regulation of public commercial vehicles, details of traffic rules, speed, and the use of motor-vehicles, that it is impossible even to outline them satisfactorily in the space available here. For the most important features see the annual bulletin published by the Dominion Bureau of Statistics.

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† The information in this Section has been revised from material provided by the officials in charge of the administration of motor-vehicle and traffic Acts and Regulations in the individual provinces.

Safety Responsibility Legislation.—Manitoba was the first province to adopt safety responsibility measures. In 1945, the Manitoba Legislature passed new legislation amending the Highway Traffic Act, under which, generally speaking if a motorist is unable to furnish proof of financial responsibility by insurance or otherwise at the time of an accident, whether the accident was his fault or not, drastic penalties ensue. These penalties include impoundment of the motor-vehicle and suspension of driver's licence and motor-vehicle registration. The objects of the law are: (1) To place the victim of an irresponsible, uninsured motorist in as good a position as he would have been in if the motorist had been insured; and (2) to promote safe driving by emphasizing by suspension of licence, etc., the fact that unsafe driving or irresponsible driving carries drastic, immediate and automatic penalties.

At the 1947 session of the Ontario Legislature, the Highway Traffic Act was amended so as to provide for the automatic suspension of the driver's licence and motor-vehicle permit of: (1) Every person convicted of any offence under the Act if any personal injury or property damage occurs in connection therewith; (2) Every person convicted of any offence under the Act if the penalty imposed includes suspension of driver's licence or owner's permit; (3) Every person convicted of a criminal offence involving the use of a motor-vehicle.

The suspensions remain effective until proof of financial responsibility is filed. The object of this law is to encourage safe driving by imposing this additional penalty on persons convicted of offences arising out of motor-vehicle accidents. Provision is also made for the forfeiture to the Crown of a motor-vehicle operated while the permit for same is under suspension. These amendments became effective July 1, 1947.

The Act was also amended to require the payment of all judgments arising out of motor-vehicle accidents either for personal injuries or property damage up to a maximum of $5,000 for one person or $10,000 for two persons and $1,000 for property damage arising out of one accident. If judgments are not satisfied by the judgment debtors, provision is made for their payment out of an Unsatisfied Judgment Fund to be created. The judgment debtor is then prohibited from holding a driver's licence or having a motor-vehicle registered in his name until the judgment debtor repays in full to the Fund the amount paid out, together with interest at 4 p.c. from the date of such payment, and also files proof of ability to satisfy a judgment for $11,000 which may arise out of any future accidents. This part of the Act is to be brought into effect by proclamation.

The authorities responsible for the administration of motor-vehicles and the legislation governing vehicles and traffic are given below for each province.

Prince Edward Island.—*Administration.*—The Provincial Secretary, Charlottetown. *Legislation.*—The Highway Traffic Act (c. 2, 1936) and amendments.

Nova Scotia.—*Administration.*—Motor Vehicle Branch, Department of Highways and Public Works, Halifax. *Legislation.*—The Motor Vehicle Act (c. 6, 1932) and amendments, and the Motor Carrier Act (c. 78, R.S.N.S. 1923) as amended.

New Brunswick.—*Administration.*—Motor Vehicle Division, Department of Public Works, Fredericton. *Legislation.*—The Motor Vehicle Act (c. 20, 1934) and amendments.

Quebec.—*Administration.*—Motor Vehicle Bureau, Provincial Revenue Offices, Treasury Department, Quebec. *Legislation.*—The Motor Vehicle Act (c. 142, R.S.Q. 1941) and amendments.

Ontario.—*Administration.*—Motor Vehicles Branch, Department of Highways, Toronto. *Legislation.*—The Highway Traffic Act (c. 288, R.S.O. 1937) and amendments. The Public Vehicle Act (c. 289, R.S.O. 1937) and the Commercial Vehicle Act (c. 290, R.S.O. 1937).

Manitoba.—*Administration.*—Provincial Treasurer, Winnipeg. *Legislation.*—The Highway Traffic Act (c. 93, R.S.M. 1940) and amendments.

Saskatchewan.—*Administration.*—Treasury Department, Taxation Branch, Highway Traffic Board, Revenue Building, Regina. *Legislation.*—The Vehicles Act (c. 98, 1945).

Alberta.—*Administration.*—Motor Vehicle Branch, Department of the Provincial Secretary, Edmonton, and Alberta Highway Traffic Board, Edmonton. *Legislation.*—The Vehicles and Highway Traffic Act (c. 275, R.S.A. 1942) and amendments, the Public Service Vehicles Act (c. 276, R.S.A. 1942), and Rules and Regulations. The Vehicles and Highway Traffic Act is administered by the Department of the Provincial Secretary, and the Public Service Vehicles Act by the Alberta Highway Traffic Board, Department of Public Works.

British Columbia.—*Legislation.*—The Motor Vehicle Act (c. 195, R.S.B.C. 1936), and the Highway Act (c. 116, R.S.B.C. 1936) and amendments thereto, as well as the Motor Carrier Act (c. 36, R.S.B.C. 1939). *Administration.*—Enforcement of the Motor Vehicle Act, the Highway Act and the Motor Carrier Act is vested in the Commissioner of Provincial Police, Victoria, while the Highway Act is administered by the Minister of Public Works, the Motor Carrier Act by the Public Utilities Commission, and the Motor Vehicle Act by the Superintendent of Motor Vehicles.

Yukon.—*Administration.*—Territorial Secretary, Dawson, Yukon. Information regarding regulations may also be obtained from the Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, No. 14, 1914, and amendments.

Northwest Territories.—*Administration.*—Director, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa. *Legislation.*—The Motor Vehicle Ordinance, assented to Mar. 26, 1941, and amendments.

Section 2.—Roads and Vehicles

Subsection 1.—Roads and Highways

With the rapid increase in the percentage of motor-car owners to population up to 1941, the demand for improved roads has become more and more insistent since the War of 1914-18. Furthermore, the advantages to be gained by attracting touring motorists have been a powerful incentive to governing bodies to improve trunk roads and scenic highways within their jurisdictions. One sphere where the motor-car and truck has been of special economic advantage has been in rural areas. As a result, according to the Census of 1941, there was one motor-vehicle for every 1·8 farms. This widespread rural ownership of automobiles and trucks has, in turn, brought about an improvement of secondary rural roads.

The table of road mileages below includes all roads under provincial jurisdiction and local roads in the Maritime Provinces and Ontario and estimates of local roads in the four western provinces. There are great stretches of country in the northern portions of Quebec, Ontario, the Prairie Provinces and British Columbia with very few people and very few roads, but the southern portions are well supplied. The Trans-Canada Highway provides a strategic link between Eastern and Western Canada that permits motorists to traverse the Dominion without entering United States territory.

1.—Classification of Highways, by Provinces, 1945

Note.—The date for which the mileage was reported is indicated for each province. The figures for Canada are the sums of the mileages so reported. Urban streets are not included in the figures. Dashes indicate that no mileages were reported under corresponding stub items.

Classification	P.E.I.[1]	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	Mar. 31, 1945	Nov. 30, 1945	Oct. 31, 1945	Mar. 31, 1946	Mar. 31, 1946	Apr. 30, 1946	Apr. 30, 1946	Mar. 31, 1946	Mar. 31, 1945	
	miles	miles	miles	miles	miles	miles	miles	miles	miles	miles
Surfaced Road										
Portland cement concrete	4	7	–	333	2,091	37	–	–	41	2,513
Bituminous pavement	205	902	–	3,176	2,212	–	–	90	114	6,699
Bituminous surface	–	33	977	974	3,406	509	132	644	1,452	8,127
Gravel—crushed stone	242	6,048	7,681	18,703	49,425	8,385	8,529	6,922	8,056	113,991
Other surfaces	–	–	–	–	–	–	76	–	47	123
Totals, Surfaced Road	451	6,990	8,658	23,186	57,134	8,931	8,737	7,656	9,710	131,453
Non-surfaced Road										
Improved earth	2,352	3,207	2,670	–	9,058	8,171	72,031	14,967	9,765	122,221
Other earth roads	903	4,907	984	16,590	6,809	74,236[2]	132,118	59,114	2,680	298,341
Totals, Non-surfaced Road	3,255	8,114	3,654	16,590	15,867	82,407	204,149	74,081	12,445	420,562
Grand Totals	**3,706**	**15,104**	**12,312**	**39,776**	**73,001**	**91,338**	**212,886**	**81,737**	**22,155**	**552,015**

[1] 1944 mileage. [2] Includes road allowances.

The Alaska Highway.—The Alaska Highway, a 1,600-mile roadway, 24 to 36 feet wide, extends from Fort St. John, B.C.,* through Whitehorse, to Fairbanks, Alaska. It was virgin territory, and a pioneer air route, in the spring of 1942; on Nov. 20, 1942, it was officially opened for wheeled traffic. About 10,000 United States engineer troops and 4,000 civilians, of whom half were Canadians, hewed their way through the bush, bridged the rivers, overcame mountain grades and surfaced a roadbed, to permit a continuous journey by car. The maximum grade in hill country is 10 p.c.; in foothill country, 5 p.c. The Dominion Government supplied the right-of-way and exempted all shipments of construction equipment and material from customs duty and the United States Government carried out the work. On Apr. 3, 1946, the Canadian section of the Highway, from Edmonton to the Alaska border, together with the Northwest Staging Route airfields, telephone system and other defence projects (see 1945 Year Book, pp. 706 to 711) were taken over by Canada from the United States under agreement between the two countries.

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* Dawson Creek, about 30 miles to the southwest, is the railhead from which supplies are trucked in to Fort St. John. The existing road between Dawson Creek and Fort St. John has been improved and to all intents and purposes forms part of the main highway.

The Northwest Highway System as it is now called will, for the present, be operated by the Canadian Army, but will be opened for civilian traffic as soon as possible.

Statistics of urban streets have been collected since 1935 from cities and principal towns; the small municipalities omitted would increase the totals very little. For 1945 the total number of miles of street reported was 14,245, composed of: 3,350 miles of bituminous pavements; 880 miles of portland cement concrete; 2,027 miles of bituminous surfaces; 3,274 miles of gravel and crushed stone; and 399 miles of other surfaces; making a total of 9,930 miles of surfaced streets and 4,315 miles of earth roads. These figures for urban streets or roads are not included in the table of highway mileage.

Subsection 2.—Motor-Vehicles

Registration.—Automobiles were registered in Canada for the first time in 1904 and Ontario was the only province to issue licences in that year. New Brunswick began registering cars in 1905; Quebec, Saskatchewan and Alberta in 1906; British Columbia in 1907; Manitoba in 1908; Nova Scotia in 1909; Prince Edward Island in 1913 and Yukon in 1914.

In 1905 only 565 motor-vehicles were registered, by 1915 the number had risen to 95,284, and by the end of the next decade to 724,048. A peak of 1,572,784 was reached in 1941, including 1,279,536 passenger cars, 278,771 commercial cars and 14,477 motorcycles. During the war years the number of commercial cars continued to increase, advancing to 322,829 in 1945, including 315,606 trucks 5,988 buses and 1,235 miscellaneous vehicles; motorcycles were slightly less at 14,194. Passenger cars, however, declined each year to 1,160,058 in 1945, due to restrictions on the manufacture of cars for private use, tires and gasoline, inability to secure repair parts and shortage of garage mechanics. The full effect of the lifting of wartime restrictions may not be felt for some time, since material shortages have continued to keep down production.

Revenues from motor-vehicle licences, operators' permits, etc., amounted to $32,000,000 in 1945 compared with $28,000,000 in 1939 and $13,400,000 in 1925.

2.—Motor-Vehicles Registered, by Provinces, 1936-45

NOTE.—Registrations given here include passenger cars, trucks, buses, motorcycles, service cars, etc., but not trailers or dealer licences. Figures for 1904-35 are given at p. 668 of the 1937 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total[1]
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936	7,632	46,179	33,402	181,628	590,226	74,940	102,270	97,468	106,079	1,240,124
1937	8,011	50,048	36,780	197,917	623,918	80,860	105,064	100,434	116,341	1,319,702
1938	7,992	51,214	37,110	205,463	669,088	88,219	109,014	107,191	119,220	1,394,853
1939	8,040	53,008	38,116	213,148	682,891	88,864	119,018	113,702	122,087	1,439,245
1940	8,070	57,873	39,000	225,152	703,872	90,932	126,970	120,514	128,044	1,500,829
1941	8,015	62,805	41,450	232,149	739,194	96,573	131,545	126,127	134,499	1,572,784
1942	7,537	58,872	37,758	222,622	715,380	93,147	130,040	125,482	132,893	1,524,153
1943	8,032	59,194	40,205	222,676	691,615	93,494	133,839	127,559	134,691	1,511,845
1944	8,412	57,933	39,570	224,042	675,057	93,297	140,992	127,416	135,090	1,502,567
1945	8,835	56,699	41,577	228,681	662,719	92,758	140,257	130,153	134,788	1,497,081

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[1] Totals include registrations in Yukon,

3.—Types of Motor-Vehicles Registered, by Provinces, 1945

Province	Passenger Cars[1]	Commercial Cars, Trucks, etc.[2]	Buses	Motor-cycles	Total[1, 2]
	No.	No.	No.	No.	No.
Prince Edward Island	6,744	2,043	8	40	8,835
Nova Scotia	40,314	15,449	350	586	56,699
New Brunswick	28,794	12,303	221	259	41,577
Quebec	171,240	52,978	1,629	2,834	228,681
Ontario	555,461	99,618	1,895	5,745	662,719
Manitoba	69,268	22,670	126	694	92,758
Saskatchewan	96,268	42,956	261	772	140,257
Alberta	92,334	36,262	815	742	130,153
British Columbia	99,421	32,185	676	2,506	134,788
Yukon	214	377	7	16	614
Totals	**1,160,058**	**316,841**	**5,988**	**14,194**	**1,497,081**

[1] Includes taxis. [2] Includes service cars, tractors, etc.

Apparent Consumption of Automobiles.—The apparent consumption of automobiles in Canada in any year may be computed by deducting the number exported from the sum of the production and imports. Statistics regarding retail sales and the financing of motor-vehicle sales in Canada are given at pp. 834-835 of this volume. The figures as now presented for the war years (Table 4), are not quite comparable with the earlier statistics as they have been revised and improved in several respects over this period.

4.—Apparent Consumption of Automobiles, 1939-45

Year	Cars Made for Sale in Canada		Imports		Re-Exports of Imported Cars		Apparent Supply	
	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial	Passenger	Commercial
	No.	No.	No.	No.	No.	No.	No.	No.
1939	75,145	24,058	16,585	1,699	207	13	91,523	25,744
1940	94,633	53,169	15,386	1,633	145	10	109,874	54,792
1941	81,943	76,627	2,672	1,036	26	Nil	84,589	77,663
1942	8,596	93,903	327	718	9	2	8,914	94,619
1943	Nil	79,290	21	795	1	163	20	79,922
1944	“	66,013	35	3,249	5	33	30	69,229
1945	1,866	47,459	236	1,855	3	19	2,099	49,295

Section 3.—Finances of Road Transportation

The cost of road transportation to the people of Canada may be summarized under the following headings: expenditures on roads and highways; expenditures of individuals and corporations on owned motor-vehicles; expenditures for freight and passenger services rendered by motor-vehicle public carriers such as taxi, bus and motor-transport companies; and expenditures on garages, service stations, etc. Since expenditures on roads and highways are made almost entirely by governmental bodies, fairly complete statistics are available regarding them but, owing to the tremendous number of individuals and organizations that would have to be canvassed and the difficulties involved, complete statistics are not available under the other headings. Sales of gasoline are given at p. 689, and revenues of motor-carriers at p. 685.

Expenditures on Roads and Highways.—Roads in Canada, except in the Territories and the National Parks are under the jurisdiction of provincial and municipal authorities. During the war years, capital expenditures on highways, bridges and ferries have shown a decided drop as compared with the years immediately preceding the War. On the other hand, maintenance expenditures have increased considerably.

5.—Capital, Maintenance and General Expenditures on Rural Highways, Bridges and Ferries in Canada, by Provinces, 1941-45

Note.—Provincial expenditures are for their respective fiscal years. Figures for each year since 1931 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Item and Province	1941	1942	1943	1944	1945
	$	$	$	$	$
Capital Expenditures					
Prince Edward Island	197,256	126,144	141,175	388,538	486,759
Nova Scotia	718,347	655,612	192,109	445,349	554,078
New Brunswick	1,090,828	1,060,580	795,852	2,845,019	2,820,685
Quebec	13,273,995	10,453,185	10,843,890	13,153,874	13,916,204
Ontario	18,389,115	7,269,659	2,482,488	3,505,222	4,928,485
Manitoba	183,072	121,347	25,334	118,197	596,680
Saskatchewan	792,916	1,016,372	1,733,860	2,067,989	2,346,936
Alberta	1,721,205	1,303,885	1,449,042	2,313,732	2,586,941
British Columbia	871,220	5,869,409	7,230,557	6,667,429	3,583,829
Totals, Capital	**37,237,954**	**27,876,193**	**24,894,307**	**31,505,349**	**32,191,134**[2]
Maintenance Expenditures					
Prince Edward Island	259,342	261,716	319,079	569,144	680,082
Nova Scotia	2,462,092	2,609,146	2,679,878	3,025,357	3,933,298
New Brunswick	1,676,113	1,711,808	1,697,931	2,684,747	2,950,899
Quebec	6,947,801	7,598,008	8,339,542	8,659,753	10,160,318
Ontario	18,795,296	13,928,047	18,374,484	17,601,135	21,118,003
Manitoba	969,329	1,000,643	1,062,455	1,246,130	1,468,625
Saskatchewan	981,944	981,100	1,071,410	1,202,737	1,420,260
Alberta	1,477,954	1,650,916	1,661,213	1,532,732	4,562,050
British Columbia	2,683,771	2,969,292	2,595,021[1]	1,036,867	2,697,359
Totals, Maintenance	**36,253,642**	**32,710,676**	**37,801,013**[1]	**37,571,893**[2]	**48,995,515**[2]
Plant and General Expenditures					
Prince Edward Island	35,878	26,529	40,012	139	56,673
Nova Scotia	332,083	1,481	326,739	323,276	341,948
New Brunswick	60,629	57,787	56,300	63,978	72,418
Quebec	608,383	1,012,114	995,430	1,133,170	1,273,144
Ontario	746,219	629,365	624,860	507,041	502,955
Manitoba	185,740	178,028	207,621	248,522	289,683
Saskatchewan	146,715	135,116	125,048	125,647	145,143
Alberta	21,850	8,227	9,298	6,473	8,421
British Columbia	360,092	204,421	14,369	360,696	277,532
Totals, Plant and General	**2,497,589**	**2,253,068**	**2,399,677**	**2,774,099**[2]	**2,978,108**[2]
Grand Totals	**75,989,185**	**62,839,937**	**65,094,997**	**71,851,341**[2]	**84,164,757**[2]
Dominion-Provincial Distribution of All Expenditures					
Dominion—net expenditures and subsidies	2,204,229	5,141,755	7,132,612	3,917,448	1,073,581[2]
Provincial—net expenditures and subsidies	65,674,552	52,660,076	52,870,362	62,175,873	73,536,267
Municipal—net expenditures and subsidies	7,752,012	4,694,404	4,626,330	5,514,832	9,441,779
Subsidies from other sources[3]	358,392	343,702	465,693	243,188	113,130

[1] Includes 1,500 in the Northwest Territories. [2] Includes expenditures in the Northwest Territories. [3] Includes payments from railways *re* elimination of grade crossings, etc.

Provincial Funded Debt Incurred for Highways.—By far the greater portion of the highway expenditure has been made by the provinces and consequently must be paid out of provincial taxes. Payment for much of the construction costs has been deferred and this has accounted for part of the rapid increase in provincial funded debt since 1919. In 1919 the net funded debt of all the provinces was $270,338,092; in 1944 (the latest year for which provincial figures are available) it has reached $1,454,917,000, the portion chargeable to highways being $822,599,145 or more than three times the net debt for all purposes in 1919. Proir to 1919 the provincial expenditures on highways were relatively small.

6.—Provincial Government Funded Highway Debt and Annual Charges Thereon, 1942-44

Province	Highway Debt Outstanding			Interest			Payments on Sinking Capital Fund	
	1942	1943	1944	1942	1943	1944	1943	1944
	$	$	$	$	$	$	$	$
P.E.I.	[1]	[1]	[1]	[1]	[1]	[1]	[1]	[1]
N.S.	66,665,890	66,635,828	66,610,290	2,438,922	2,326,984	2,221,438	Nil	437,107
N.B.	74,473,577	73,901,807	73,838,917	3,081,017	3,066,925	3,042,204	571,770	469,004
Que.	157,505,956	171,903,085[2]	180,527,508	5,355,000	5,833,181	5,923,483	938,000	2,666,634
Ont.	351,863,030	354,389,819	357,119,860	17,593,152	17,719,491	17,855,993	Nil	Nil
Man.	17,972,539	17,959,647	17,880,939	850,690	853,666	828,576	12,892	213,482
Sask.	33,818,920	32,827,775	31,946,250	1,500,757	1,506,509	1,482,130	991,145	950,924
Alta.	44,290,637	45,534,014	47,862,119	1,252,296	1,283,923	1,353,924	Nil	Nil
B.C.	45,593,602	48,211,872	46,813,262	2,015,466	2,020,447	2,003,892	410,954	1,553,974
Totals	**792,544,151**	**811,363,847**	**822,599,145**	**34,087,300**	**34,611,126**	**34,711,640**	**2,924,761**	**6,291,125**

[1] Not reported. [2] Treasury notes included.

Provincial Government Revenues from Motor-Vehicles.—The taxation of motor-vehicles, garages, chauffeurs, etc., is an important source of Provincial Government income. In every province licences or permits, duly issued by the provincial authorities, are required for: motor-vehicles of all kinds, trailers, operators or drivers, paid chauffeurs, dealers, garages and gasoline and service stations. A sales tax on gasoline is also levied by each province and to Mar. 31, 1947, there was also a Dominion tax of 3 cents but this was withdrawn on that date and for the most part provincial taxes were increased to absorb the Dominion rate. The rates at present in effect are: for each of the three Maritime Provinces 13 cents; Quebec and Ontario 11 cents; Manitoba 9 cents; Saskatchewan 10 cents; Alberta 9 cents; British Columbia 10 cents and Yukon 3 cents. The more important sources from which provincial revenues from motor-vehicles are derived are shown in Table 7. Federal Government revenues from import duties, excise and sales taxes are not included.

7.—Provincial Revenues from the Taxation of the Distribution and Operation of Motor-Vehicles, 1945

NOTE.—Provincial Governments report for their respective fiscal years, see Table **1**, p. 680.

Province or Territory	Passenger Cars	Trucks and Buses	Motor-cycles	Dealer Licences	Operator and Chauffeur Licences	Tax on Operators of Motor-buses and Trucks	Gasoline Tax[1]	Total, Including Miscellaneous Revenue
	$	$	$	$	$	$	$	$
P. E. Island	104,336	61,423	210	415	6,449	1,870	364,663	541,960
Nova Scotia	752,258	730,026	[2]	6,526	158,051	79,470	2,906,639	4,749,675
New Brunswick	559,991	647,758	1,658	2,208	128,615	23,196	2,101,072	3,492,112
Quebec	3,522,000[3]	2,357,000	12,000	22,000	760,000	73,000	11,461,400	19,325,400
Ontario	4,270,984	3,474,136	6,182	17,055	1,171,916	541,637	26,608,291	36,653,342
Manitoba	860,286	322,913	2,537	6,680	139,126	246,000	2,681,556	4,295,403
Saskatchewan	1,192,362	630,666	4,574	15,525	204,247	12,399	4,390,333	6,813,951
Alberta	1,454,925	839,023	3,514	10,075	209,942	728,050	4,463,196	7,728,422
British Columbia	1,656,772	1,006,831	13,275	8,072	229,737	151,204	4,330,543	7,557,211
Yukon	2,243	4,022	64	Nil	400	Nil	17,268	24,319
Totals	**14,376,157**	**10,073,798**	**44,014**	88,556	**3,008,483**	**1,856,826**	**59,324,961**	**91,181,795**

[1] Includes payment of $10,251,891 Federal Government guarantee of Provincial gasoline tax revenue. [2] Included with miscellaneous. [3] Estimated.

Motor-Carriers.*—The lack of statistical information in regard to the increasing amount of passenger and freight traffic on the highways of Canada led to the institution of a census of motor-carriers in 1941. The carriers were divided into two main classes: (1) passenger and (2) freight. Each of these was subdivided into two classes: (*a*) carriers with revenues less than $20,000, and (*b*) carriers with revenues of $20,000 or over. Bus companies handling urban traffic exclusively were compiled as a class. Many street railway systems operate motor-buses, but the statistics of such systems are not included here; they are included in electric railway statistics. Licensed carriers doing highway construction work, building air fields, etc., were excluded from the compilations. Taxi operators and urban delivery trucks also were excluded, except where their operations included interurban business. Carriers operating as both passenger and freight carriers were classed as passenger or freight according to the preponderance of the revenue. The passenger revenue of trucking companies and the freight revenue of bus companies were small percentages of their total revenues.

Operators with revenue of less than $8,000 in 1941 were excluded from the 1942 and subsequent compilations. The figures given below are therefore not comparable in all respects with those for 1941 published at pp. 602 and 603 of the 1943-44 Year Book.

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* Statistics of traffic carried are given at p. 686, under Section 4, Road Traffic. For statistics by provinces see the annual report, "Motor Carriers, Freight-Passenger", obtainable from the Dominion Statistician, Ottawa. Price 10 cents.

8.—Capital, Revenues, Employees and Equipment of Motor-Carriers, 1944 and 1945

Note.—Large freight carriers include those with annual revenues of $20,000 or over; small freight carriers those with annual revenues of from $8,000 to $20,000.

Item	Freight Carriers				Passenger Carriers		Totals	
	Large		Small					
	1944	1945	1944	1945	1944	1945	1944	1945
Carriers.........No.	498	492	384	357	479	475	1,361	1,324
Investments—								
Land, buildings, equipment, etc. $	24,943,461	25,542,071	3,134,904	2,970,400	26,108,096	30,888,282	54,186,461	59,400,753
Revenue—								
Freight......... $	39,541,603	41,015,054	4,823,750	4,403,092	386,097	547,038	44,751,450	45,965,184
Passenger—								
Intercity and rural....... $	275,964	183,997	28,504	11,683	25,151,597	29,467,098	25,456,065	29,662,778
City......... $	Nil	Nil	Nil	Nil	8,560,612	9,240,049	8,560,612	9,240,049
Miscellaneous... $	1,787,629	1,703,241	205,862	193,900	945,986	1,392,338	2,939,477	3,289,479
Totals, Revenue $	41,605,196	42,902,292	5,058,116	4,608,675	35,044,292	40,646,523	81,707,604	88,157,490
Working proprietors.......No.	268	279	335	309	328	296	931	884
Employees—								
As at July 15..No.	11,552	11,780	1,288	1,133	5,790	6,216	18,630	19,129
As at Dec. 15.. "	11,458	11,671	1,236	1,129	5,930	6,931	18,624	19,731
Total wages... $	16,743,548	17,200,932	1,400,672	1,281,109	9,642,877	11,287,000	27,787,097	29,769,041
Equipment—								
Trucks........No.	5,391	5,233	1,205	1,049	176	204	6,772	6,486
Tractor, semi-trailer units. "	1,954	1,939	81	89	28	35	2,063	2,063
Trailers....... "	1,013	1,077	69	54	21	23	1,103	1,154
Buses......... "	39	24	10	9	3,055	3,289	3,104	3,322

Section 4.—Road Traffic

Up to the present the motor-vehicle has affected passenger traffic of the steam and electric railways more than freight traffic. This diversion of passenger traffic has been effected largely by the private automobile, although the motor-bus is rapidly becoming more important and now operates between all large centres. The motor-truck also carries a considerable amount of freight.

As explained at p. 685, certain statistics in regard to motor-carriers are collected, and those relating to freight and passengers carried are presented in Table **9**. Traffic data were not available for the majority of the small operators. Many truck operators failed to report tons of freight carried and others reported only estimates; consequently these data are not very informative. A difficulty in compiling weights, which is quite understandable, is that much traffic was carried on a load basis and not a weight basis. Records of passengers appear to be fairly complete, possibly because tickets were sold and accounted for, and the unit was not so complex as for freight carried.

9.—Traffic Carried by Motor-Carriers, 1944 and 1945

NOTE.—Large freight carriers include those with annual revenues of $20,000 or over; small freight carriers those with annual revenues of from $8,000 to $20,000.

Item	Freight Carriers				Passenger Carriers		Totals	
	Large		Small					
	1944	1945	1944	1945	1944	1945	1944	1945
Passengers Carried—								
Regular Routes—								
Intercity and rural.......No.	663,257	474,613	54,412	14,714	91,697,757	93,738,719	92,415,426	94,228,046
City........ "	Nil	Nil	Nil	Nil	134,021,667	141,344,895	134,021,667	141,344,895
Special and Chartered Service—								
Intercity and rural......No.	30,327	14,530	10,836	Nil	7,942,475	3,972,792	7,983,638	3,987,322
City....... "	Nil	Nil	Nil	"	388,151	297,602	388,151	297,602
Totals, Passengers Carried..No.	**693,584**	**489,143**	**65,248**	**14,714**	**234,050,050**	**239,354,008**	**234,808,882**	**239,857,865**
Totals, Freight Carried — Intercity and Rural.........ton	**8,044,267**	**8,003,553**	**1,496,750**	**2,739,093**	**63,930**	**110,985**	**9,604,947**	**10,853,631**

Motor-Vehicle Accidents.—Motorists are required to report accidents but comprehensive statistics are not available for all provinces. The Vital Statistics Division of the Bureau of Statistics compiles statistics on all deaths from motor-vehicle accidents and these are shown in Table **10**. A direct comparison of such statistics between the provinces is of little value due to differences in size, population, motor-vehicle density, etc., but, to put them on somewhat the same basis, the average number of deaths per 10,000 registered motor-vehicles has also been tabulated. These data still give no weight to differences in use of motor-vehicles, differences in climate, roads, tourist cars, etc., all of which are factors in accidents.

Table **11** shows the number of persons killed or injured in automobile accidents as reported by the motor-vehicle branches of the Provincial Governments. It is quite possible that the latter reported some persons as injured who subsequently died from the injuries and these would be included in the fatalities of the vital statistics shown in Table **10**, also accidents that occurred late in December and resulted in deaths would be charged to December by the provincial authorities but to January of the next year in the vital statistics. Consequently, the figures of fatalities of Tables **10** and **11** are not in complete agreement.

10.—Deaths Resulting from Motor-Vehicle Accidents, by Provinces, 1936-45

Note.—This table was compiled in the Vital Statistics Division, Dominion Bureau of Statistics. Figures for the years 1926-35 will be found at p. 578 of the 1941 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	DEATHS									
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936	7	60	41	371	564	53	47	72	101	1,316
1937	7	97	67	405	774	66	47	55	124	1,642
1938	6	75	58	413	677	80	49	77	110	1,545
1939	7	84	92	390	682	63	65	81	120	1,584
1940	10	104	81	434	746	87	59	72	116	1,709
1941	9	104	89	485	835	79	45	78	128	1,852
1942	8	72	52	363	610	52	58	62	132	1,409
1943	5	90	70	392	563	44	34	84	155	1,437
1944	11	73	56	406	526	53	43	80	124	1,372
1945	8	75	88	415	618	66	57	69	125	1,521
	DEATHS PER 10,000 REGISTERED MOTOR-VEHICLES									
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1936	9·17	12·99	12·27	20·43	9·56	7·07	4·60	7·39	9·52	10·61
1937	8·73	19·38	18·22	20·46	12·41	8·16	4·47	5·48	10·66	12·44
1938	7·51	14·64	15·63	20·10	10·12	9·07	4·49	7·18	9·23	11·08
1939	8·71	15·85	24·14	18·30	9·99	7·09	5·46	7·12	9·83	11·01
1940	12·39	17·97	20·77	19·28	10·60	9·57	4·65	5·97	9·06	11·39
1941	11·23	16·56	21·47	20·89	11·30	8·18	3·42	6·18	9·52	11·78
1942	10·61	12·23	13·77	16·31	8·53	5·58	4·46	4·94	9·93	9·24
1943	6·23	15·20	17·41	17·60	8·14	4·71	2·54	6·59	11·51	9·51
1944	13·08	12·60	14·15	18·12	7·79	5·68	3·05	6·28	9·18	9·14
1945	9·05	13·23	21·17	18·15	9·33	7·12	4·06	5·30	9·27	10·16

11.—Motor-Vehicle Accidents, 1945

Note.—Figures are as reported by provincial motor-vehicle authorities for the calendar year.

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Accidents										
Fatal—										
Resulting in death of one or more persons	7	72	[1]	309	547	55	43	68	108	-
Non-fatal—										
Resulting in injury to one or more persons	64	674	[1]	4,529	7,085	1,111	784	738	2,262	-
Resulting in property damage only	126	957	[1]	8,495	5,826	2,202	1,527	3,319	4,697	-
Totals, Accidents	**197**	**1,703**	**896**	**13,333**	**13,458**	**3,368**	**2,354**	**4,125**	**7,067**	**46,591**

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[1] Not segregated.

11.—Motor-Vehicle Accidents, 1945—concluded

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Persons Killed										
Pedestrians	4	39	32	167	283	27	10	18	44	624
Motorcyclists (drivers and passengers)	Nil	Nil	Nil	5	13	Nil	Nil	2	7	27
Drivers of other motor-vehicles	1	9	11	52	125	34	18	16	15	623
Passengers and attendants of other motor-vehicles	2	25	14	91	133		22	16	39	
Drivers and other occupants of horse-drawn vehicles	Nil	Nil	3	13	4	1	Nil	1	Nil	22
Pedal cyclists	"	6	5	18	40	3	3	1	11	87
Other persons	"	Nil	Nil	Nil	Nil	Nil	1	15	Nil	16
Totals, Persons Killed	**7**	**79**	**65**	**346**	**598**	**65**	**54**	**69**	**116**	**1,399**
Persons Injured										
Pedestrians	6	326	199	2,337	2,883	526	124	216	710	7,327
Motorcyclists (drivers and passengers)	2	18	Nil	115	268	23	14	34	129	603
Drivers of other motor-vehicles	28	149	355	836	1,967	737	326	231	645	14,406
Passengers and attendants of other motor-vehicles	30	354		2,315	3,917		650	506	1,360	
Drivers and other occupants of horse-drawn vehicles	1	6	Nil	155	87	21	31	12	18	331
Pedal cyclists	3	43	"	434	682	150	51	85	242	1,690
Other persons	Nil	Nil	"	Nil	Nil	Nil	3	58	4	65
Totals, Persons Injured	**70**	**896**	**554**	**6,192**	**9,804**	**1,457**	**1,199**	**1,142**	**3,108**	**24,422**
Property Damage...$	**17,862**	**247,509**	**118,695**	[1]	**2,249,271**	**278,544**	**427,342**	**541,878**	**960,367**	**4,841,468**[2]

[1] No record. [2] Total for provinces reporting.

Gasoline Consumption.—All provinces require retail sales of gasoline to be reported and a tax is imposed on all gasoline consumed by motor-vehicles using the highways and streets and also on that used for an increasing number of other purposes. However, the taxable gasoline is still largely consumed by motor-vehicles and indicates in a general way the increase or decrease in their use. Net sales are the differences between the total or gross sales reported and the quantities on which the tax is refunded in whole or in part, or on which the tax is not imposed at the time of sale.

Figures to the end of 1940 show a steady increase in gasoline sales since depression years. Later figures are, of course, materially affected by the conservation measures taken in 1941, and the system of gasoline rationing effective from April 1942 to August, 1945.

12.—Sales of Gasoline, by Provinces, 1940-45

Province	1940	1941	1942	1943	1944	1945
	gal.	gal.	gal.	gal.	gal.	gal.
P. E. Island	4,094,203	5,174,759	6,628,067	7,881,403	9,295,639	4,715,743
Nova Scotia	34,961,212	41,354,887	40,885,976	42,465,349	43,462,061	37,727,413
New Brunswick	24,829,924	26,288,682	25,499,817	27,255,758	28,077,021	29,175,358
Quebec	148,499,644	165,839,507	149,918,783	147,048,452	178,879,214	168,304,460
Ontario	371,903,633	410,711,924	343,811,002	309,487,964	315,976,426	323,814,957
Manitoba	48,893,738	54,212,671	58,566,931	63,375,584	70,399,123	56,119,024
Saskatchewan	101,101,143	112,779,554	101,808,034	104,175,400	119,840,189	118,463,733
Alberta	83,808,689	93,068,504	97,502,012	114,969,882	120,159,267	102,753.583
British Columbia	65,198,108	70,995,551	73,186,336	86,932,371	84,383,083	74,621,447
Totals, Gross Sales	**883,290,294**[1]	**980,426,039**	**897,806,958**	**903,592,163**	**970,472,023**	**915,695,718**
Refunds and exemptions	180,573,998[1]	233,017,682	286,087,504	373,747,304	395,615,510	253,079,186
Totals, Net Sales	**702,716,296**[1]	**747,408,357**	**611,719,454**	**529,844,859**	**574,856,513**	**662,616,532**

[1] Exclusive of 2,975,000 gal. of aviation gasoline purchased and placed in storage by the Federal Government.

PART IV.—WATERWAYS*

The Canada Shipping Act.—Legislation regarding all phases of shipping was consolidated under the Canada Shipping Act (c. 44, 1934). The Act was a sequel to the passage of the Statute of Westminster in 1931, under which the Parliament of Canada accepted full responsibility for the regulation of Canadian shipping. The Canada Shipping Act is a comprehensive piece of legislation and constitutes, in fact, the incorporation in the shipping law of Canada of features of international agreements and of British and previous Canadian legislation. A brief summary of the Act is given at pp. 681-683 of the 1938 Year Book.

Section 1.—Equipment and Facilities

The developments and equipment to facilitate water traffic are classified under the sub-headings of shipping, aids to navigation and miscellaneous works, canals and harbours. A subsection is added giving figures of administrative activities regarding pilotage service, steamship inspection, personnel and accidents to shipping.

Subsection 1.—Shipping

Since all waterways, including canals and inland lakes and rivers, are open upon equal terms, except in the case of the coasting trade, to the shipping of all countries of the world, the commerce of the Dominion is by no means entirely dependent upon Canadian shipping. However, a large part of the inland and coast-wise traffic is carried in ships of Canadian registry.

Canadian Registry.—Under Part I of the Canada Shipping Act, every ship that falls under the definition of "British Ship" given in Sect. 6 of the Act and is controlled as to management and use in Canada must, unless registered elsewhere in the Empire, be registered in Canada. An exception is made in the case of ships not exceeding 10 tons register and engaged solely in coastal or inland navigation. A ship (whatever her qualification for British registry) that is not registered in any part of His Majesty's dominions, is not entitled to the privileges accorded to British ships. Vessels about to be built *may* be recorded, and vessels being built or equipped *must* be recorded, by a registrar of British ships under the Act.

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* Information and statistics dealing with this subject have been supplied as follows: aids to navigation, canals, harbours, administrative services, and marine services, by the Department of Transport and the National Harbours Board; graving docks and part of the financial statistics, by the Department of Public Works; shipping subsidies by the Director of Steamship Subsidies, Department of Trade and Commerce; Panama Canal, by the Governor of the Panama Canal Zone; other canal traffic and statistics of shipping, by the Transportation and Public Utilities Division, Dominion Bureau of Statistics.

For a record of the number and tonnage of ships engaged in the carrying trade of Canada, see pp. 704-712. The tables are included there under traffic statistics because they relate more directly to traffic and services than merely to the shipping available. For an account of the shipping services operated by the Federal Government, see pp. 694-696.

1.—Vessels on Canadian Shipping Registry, by Provinces, as at Dec. 31, 1940-44

Note.—Figures for 1935-39 are given at p. 581 of the 1941 Year Book.

Province or Territory	1940		1941		1942		1943		1944	
	No.	Net Tons	No.	Net Tons	No.	Net Tons	No.	Net Tons	No.	Net Tons
P. E. Island.....	89	8,611	89	5,313	86	5,157	86	5,161	85	4,925
Nova Scotia.....	1,811	77,477	1,932	80,548	2,082	57,369	2,233	54,673	2,371	52,274
New Brunswick..	847	39,647	870	38,927	872	34,629	882	31,564	915	31,421
Quebec..........	1,152	435,542	1,151	422,476	1,175	422,926	1,226	577,510	1,326	896,795
Ontario..........	1,232	397,900	1,252	390,766	1,226	370,645	1,208	355,282	1,208	349,223
Manitoba........	95	9,890	96	9,791	97	9,813	106	11,378	112	11,441
Saskatchewan....	2	201	2	201	2	201	2	201	2	201
British Columbia	3,150	318,399	3,257	318,764	3,294	304,482	3,316	308,276	3,335	294,759
Yukon...........	18	5,025	18	5,025	18	5,025	15	4,259	15	4,259
Totals.......	**8,396**	**1,292,692**	**8,667**	**1,271,811**	**8,852**	**1,210,247**	**9,074**	**1,348,304**	**9,369**	**1,645,298**

Subsection 2.—Aids to Navigation and Miscellaneous Works

Included under this heading are the lighthouses and the whole system of marine danger signals on the east and west coasts of Canada, on Hudson Bay and Strait, the St. Lawrence River and Gulf, the inland rivers and lakes, and at the entrances to harbours — a very extensive system designed to provide safe navigation in all Canadian waters. In addition, a pilotage service is maintained in waters where navigation is difficult; this service is described under marine services at pp. 694-695. As a further aid to safe navigation, there are chains of radio signal and direction-finding stations which are described under radiotelegraphy, at pp. 734-735.

Aids to navigation, excepting very minor ones, are listed in three annual publications of the Department of Transport covering the Atlantic Coast, Inland Waters and Pacific Coast, respectively. A summary table showing marine danger signals maintained in Canada during the fiscal years 1929-40 is given at p. 581 of the 1941 Year Book.

A great deal has been done to improve navigable waters by dredging in channels and harbours, by the removal of obstructions, and by the building of remedial works to maintain or control water levels. Probably the largest task of this nature has been the St. Lawrence River Ship Channel. An extensive floating plant is in service to maintain and improve the deep-water channel from Montreal to the sea for ocean-going shipping. Incidental to these developments of navigable waters are works to guard shorelines and prevent erosion, and also the control of roads and bridges that cross navigable channels. In order to prolong the season of navigation in important waters that freeze over in winter, ice-breaking operations are carried on at both the beginning and end of winter. This is particularly the case in connection with sea-going shipping from Montreal: these operations are primarily intended to prevent flood conditions during the spring ice break-up.

2.—Duration of the Season of Open Navigation on the St. Lawrence Ship Channel, 1933-46

Note.—Figures for the years 1882–1911 are given at p. 756 of the 1934–35 Year Book and for 1912–32 at p. 615 of the 1942 edition.

Year	Channel Open, Quebec, to Montreal[1]	First Arrival from Sea, Montreal Harbour	Last Departure for Sea, Montreal Harbour	Year	Channel Open, Quebec to Montreal[1]	First Arrival from Sea, Montreal Harbour	Last Departure for Sea, Montreal Harbour
1933.........	Mar. 23	Apr. 14	Dec. 6	1940.........	Apr. 23	Apr. 24	Dec. 5
1934.........	" 28	" 26	" 8	1941.........	" 14	" 19	" 17
1935.........	" 30	" 15	" 9	1942.........	" 17	May 2	" 16
1936.........	" 28	" 13	" 11	1943.........	" 29	" 24	" 13
1937.........	Apr. 9	" 19	" 8	1944.........	" 20	Apr. 21	" 9
1938.........	" 12	" 18	" 4	1945.........	" 1	" 9	" 3
1939.........	" 29	" 29	" 12	1946.........	" 1	" 12	" 18

[1] "Channel Open" means the route can be navigated although there may be floating ice in the river.

Subsection 3.—Canals

Before the period of extensive railway construction, which commenced for Canada in the 1850's, the water routes, more especially the St. Lawrence, the Great Lakes, and the Ottawa River, were the chief avenues of transportation. These routes were interrupted at certain points, necessitating portages and, to eliminate the toil of unloading, transporting and reloading at the portages, canals were constructed.

The earliest mention of canals in Canada is in connection with the Lachine Canal, begun by early French settlers in 1700. Only after the conquest of Canada by the British, however, were improvements of the main water routes made. In the early part of the nineteenth century increased internal and foreign trade and the introduction of steam navigation resulted in more attention being given to this work. Although some of the early canals were constructed primarily for military purposes, they soon became essential to the commercial life of the country. However, since the development of railways in Canada and, even more, since the growth of motor-vehicle traffic, the canals, with the exception of those on the Great Lakes-St. Lawrence River Route, are playing a less important part in the transportation activities of the country.

The principal canals of Canada are under the jurisdiction of the Federal Department of Transport and each is accessible from the Atlantic Ocean. They serve six routes: (1) Montreal to Port Arthur and Fort William, via the St. Lawrence River and Great Lakes; (2) Montreal to the International Boundary near Lake Champlain, via the Richelieu River; (3) Montreal to Ottawa, via the Ottawa River; (4) Ottawa to Perth and Kingston, via the Rideau and Cataraqui Rivers; (5) Trenton, at the mouth of the Trent River on Lake Ontario, to the mouth of the Severn River on Lake Huron; and (6) St. Peters, Nova Scotia, on the Atlantic Ocean, to the Bras d'Or Lakes. The aggregate length of these six routes is 1,844 miles, the total of actual canal being 535 miles.

The names of the various canals along these routes, their locations and lengths, together with the number and dimensions of the locks thereon and other information may be found in the bulletin "Canals of Canada", published by the Department of Transport. A table showing the length and lock dimensions of canals as at the end of 1941 will be found at p. 583 of the 1941 edition of the Year Book.

Under the jurisdiction of the Federal Department of Public Works are the St. Andrews Lock (length, width and draft, respectively, 215, 45 and 17 feet) at Selkirk on the Red River, Man., and the lock at Poupore, Que. There are also a few small isolated locks, each controlled under the authority of the province in which it is situated.

Subsection 4.—Harbours

Water transportation cannot be studied with any degree of completeness without taking into consideration the co-ordination of land and water transportation at many of the ports. Facilities provided to enable interchange movements include the necessary docks and wharves, some for passenger traffic but most of them for freight, warehouses for the handling of general cargo, and special equipment for such bulk freight as lumber, coal, oil, grain, etc. Facilities may include cold-storage warehouses, harbour railway and switching connections, grain elevators, coal bunkers, oil-storage tanks and, in the chief harbours, dry-dock accommodation.

Eight of the principal harbours of Canada are administered by the National Harbours Board. Seven other harbours come under the supervision of the Department of Transport and are administered by commissions that include municipal as well as Federal Government appointees. In addition, there are about 300 public harbours coming under the direct supervision of the Department of Transport of which 131 are in charge of harbour masters.

At most ports, in addition to the harbour facilities operated by the National Harbours Board or other operating commission, there are dock and handling facilities owned by private companies such as railway, pulp and paper, oil, sugar industries, etc. At a number of ports there are also graving docks which are dealt with separately.

3.—Facilities of Six of the Principal Harbours, as at Dec. 31, 1946

NOTE.—The facilities include those under the control of other agencies as well as those of the National Harbours Board at these ports.

Item	Halifax	Saint John	Quebec	Three Rivers	Montreal	Vancouver
Minimum depth of approach channel........................ ft.	50	30	30	32·5	32·5	35
Harbour railway................miles	31	63	22	5	60	75
Piers, wharves, jetties, etc...... No.	46	20	36	3	105	28
Length of berthing.............. ft.	33,416	15,175	32,505	8,690	51,060	31,436
Transit-shed floor space.........sq. ft.	1,236,804	812,000	743,642	173,600	2,063,033	1,415,514
Cold-storage warehouse capacity.cu. ft.	1,655,350	900,000	500,000	Nil	2,909,210	1,312,104
Grain Elevators—						
Capacity..................... bu.	2,200,000	3,000,000	4,000,000	2,000,000	15,162,000	18,716,500
Loading rates............bu. per hr.	75,000	150,000	90,000	32,000	400,000	312,000
Floating crane capacity......... tons	75	65	75	Nil	75	50
Coal-dock storage capacity...... "	111,000	61,000	215,000	300,000	1,380,000	Nil
Oil-tank storage capacity....... gal.	116,303,000	9,179,510	26,280,000	Nil	30,000,000	96,339,592

National Harbours Board.—A description of the origin and functions of the National Harbours Board is given at pp. 679-681 of the 1940 Year Book. The Board is responsible for the administration and operation of the following properties (representing a capital investment of approximately $225,000,000): port facilities such as wharves and piers, transit sheds, grain elevators, cold-storage warehouses, terminal railways, etc., at the harbours of Halifax, Saint John, Chicoutimi, Quebec, Three Rivers, Montreal, Vancouver and Churchill; grain elevators at Prescott and Port Colborne; and the Jacques Cartier Bridge at Montreal and the Second Narrows Bridge at Vancouver. Operating revenues and expenses for these properties are given in Table **16**, p. 702.

Public Harbours and Harbour Masters.—As stated above, there are 300 public harbours in Canada, created by proclamation under Part X of the Canada Shipping Act, 1934. These harbours are under the jurisdiction of the Minister of Transport and are administered under rules and regulations approved by the Governor in Council. Harbour masters have been appointed by the Minister of Transport for 131 of these harbours, their remuneration being made from fees levied on vessels under the terms of the Act.

Graving Docks.—The Department of Public Works of the Federal Government has constructed five dry docks. The dock at Kingston, Ont., is under lease to the Kingston Shipbuilding Company, while the old Esquimalt dry dock was temporarily transferred to the Department of National Defence on Nov. 1, 1934. This transfer is to be effective until such time as the dock is commercially required, when it will be returned to the control of the Department of Public Works. The large dry docks at Lauzon, Que., and Esquimalt, B.C., can be divided into two parts and were built at a cost of approximately $3,850,000 each. Under the Dry Dock Subsidies Act (9-10 Edw. VII, c. 17, 1910), several docks have been subsidized by payments of 3 to 4½ p.c. per annum on the original cost for a given number of years, as shown in Table **5**.

4.—Dimensions of Graving Docks Owned by the Federal Government

Location	Length	Width at—			Depth of Water on Sill	Rise of Tide	
		Coping	Bottom	Entrance		Spring	Neap
	ft.	ft.	ft.	ft.	ft.	ft.	ft.
Lauzon, Que., *Champlain*	1,150·0	144·0	105·0	120·0	40·0 H.W.	18	13·3
Lauzon, Que., *Lorne*	600·3	100·0	59·5	62·0	25·7 H.W.	18	13·3
Esquimalt, B.C. (old dock)	450·6[1]	90·0	41·0	65·0	28·8 H.W.[2]	7 to 10	3 to 8
Esquimalt, B.C	1,173·8	149·0	126·0	135·0	40·0 H.W.	7 to 10	3 to 8
Kingston, Ont	353·5	79·0	47·0	55·0	14·6 L.W.	–	–

[1] Face of caisson to vertical face at head, 481·0 ft.; length of pad on which keel blocks rest, 403·5 ft.
[2] Over keel blocks at H.W. 10 ft. tide, 26·1 ft.

5.—Dimensions and Cost of Graving Docks Subsidized under the Dry Docks Subsidies Act, 1910

Location	Length	Width	Depth Over Sill	Total Cost	Subsidy
	ft.	ft.	ft.	$	
Collingwood No. 1, Ont.[1]	518·3	59·8	13·0	500,000	3 p.c. for 20 years
Collingwood No. 2, Ont.[1]	410·0	95·0	16·0	306,965	3 p.c. for 20 years
Port Arthur, Ont.[1]	701·0	77·5	16·2	1,258,050	3 p.c. for 20 years
Montreal, Que. (floating dock), *Duke of Connaught*	601·0	100·0	38·0	3,000,000	3½ p.c. for 35 years
Prince Rupert, B.C. (floating dock)[1]	600·0	100·0	32·0[2]	2,199,168	3½ p.c. for 35 years
Saint John, N.B	1,157·8	131·5	40·3	5,500,000	4½ p.c. for 35 years
North Vancouver, B.C. (floating dock)	556·4	98·0	28·0[3]	2,500,000	4½ p.c. for 35 years

[1] Subsidy payments have been completed. [2] 28 ft. over blocks. [3] Over sill (H.W.).

Subsection 5.—Marine Services and Operations of the Federal Government

The services covered by this Subsection are those dealing with steamship inspection, pilotage service, sea-faring personnel and accidents to shipping, and the operations are those of the Canadian Government Merchant Marine, and the Canadian National (West Indies) Steamships.

Steamship Inspection.—The Steamship Inspection Service provided for under Part VII of the Canada Shipping Act, 1934, consists of a headquarters staff, at Ottawa, and staffs of inspectors at the principal ocean and inland ports. The Act provides for a Board, known as the Board of Steamship Inspection, which decides on questions arising out of the administration of the Act. The Steamship Inspection Service is responsible for the administration and carrying out of the provisions of the Act respecting the periodic inspection of power-driven ships and the issue of inspection certificates; the assignment of load lines; the conditions under which dangerous goods may be carried in ships; the protection against accident of workers employed in loading or unloading ships; and also for the administration and carrying out of the provisions relating to the certification and employment of marine engineers.

6.—Steamship Inspection, by Inspection Divisions, Year Ended Mar. 31, 1946

Port	Vessels Subject to Inspection when in Commission		Vessels Inspected				Vessels Not Inspected	
			Registered or Owned in the Dominion		Registered or Owned Elsewhere			
	No.	gross tonnage	No.	gross tonnage	No.	gross tonnage	No.	gross tonnage
Halifax	152	232,856	147	221,367	5	11,489	Nil	-
Saint John	110	302,927	59	237,868	Nil	-	51	65,059
Quebec	72	47,847	71	47,801	"	-	1	46
Sorel	81	64,592	56	54,229	"	-	25	10,363
Montreal	149	281,192	87	129,752	3	13,467	59	137,973
Kingston	62	85,987	62	85,987	Nil	-	Nil	-
Toronto	199	344,360	193	338,883	1	2,482	5	2,995
Midland	27	8,184	16	2,206	Nil	-	11	5,978
Collingwood	77	97,669	67	95,439	1	1,895	9	335
Port Arthur	144	21,054	61	16,497	Nil	-	83	4,557
Vancouver	325	468,197	271	437,005	3	23,753	51	7,439
Victoria	92	198,931	52	119,781	Nil	-	40	79,150
Totals	**1,490**	**2,153,796**	**1,142**	**1,786,815**	**13**	**53,086**	**335**	**313,895**

Pilotage.—This service functions under the provisions set forth in Part VI of the Canada Shipping Act, 1934. Qualified pilots may offer their services to the stranger in local and confined waters. At the same time, pilotage might also be considered as a method of insurance.

There are 42 pilotage districts in Canada, 9 of which (Sydney, Bras d'Or Lakes, Halifax, Saint John, Quebec, Montreal, St. Lawrence-Kingston-Ottawa, Churchill and British Columbia) are under the Minister of Transport as pilotage authority. The other districts function under local pilotage authorities appointed by the Governor in Council under the provisions of the Canada Shipping Act.

Table 7 shows, by major ports, the number and aggregate tonnage of ships using pilots during the fiscal years 1944-45 and 1945-46. Corresponding statistics are not available for the St. Lawrence-Kingston-Ottawa district.

7.—Pilotage Service by Districts, Years Ended Mar. 31, 1945 and 1946

District	1945		1946	
	Ships	Tonnage	Ships	Tonnage
Bras d'Or, N.S.	–	–	12	2,571
Sydney, N.S.	3,248	6,670,844	2,220	4,300,214
Saint John, N.B.	1,401	3,153,901	1,405	3,532,965
Halifax, N.S.	5,767	18,758,467	3,269	10,819,247
Quebec, Que.	1,921	4,097,013	2,766	8,050,185
Montreal, Que.	3,623	5,973,619	4,872	9,757,632
British Columbia	1,538	4,987,550	2,138	8,332,026
Churchill, Man.	6	6,868	1	1,503

Seamen Shipped and Discharged.—Seamen shipped and discharged at Canadian ports under the provisions of the Canada Shipping Act, 1934, during the year ended Mar. 31, 1946, numbered 30,361 and 27,042, respectively. Corresponding figures for the years 1908 to 1917 are given at p. 690 of the 1938 edition the Year Book, and for the years 1918 to 1939, at p. 587 of the 1941 edition. The publication of this information was not permitted during the war years 1939 to 1945.

Canadian Government Merchant Marine.—The circumstances under which the Canadian Government became possessed of, and responsible for, the operations of a merchant marine are explained at p. 776 of the 1934-35 Year Book. A table showing the operating results from 1919 to 1936 is given at p. 689 of the 1937 Year Book.

The original fleet of the Canadian Government Merchant Marine, Ltd., consisted of 66 vessels with a total deadweight tonnage of 391,212. The original cost of the fleet was $79,661,921 and the capital loss thereon was $74,239,356, the total capital recovery of $5,422,565 being made up as follows: (1) the sale of 56 vessels for $2,378,018; (2) the proceeds of insurance on 4 vessels lost, amounting to $2,111,475; (3) the sale of 6 vessels to the Canadian National (West Indies) Steamships, Ltd., for $933,072.

The charter of the Canadian Government Merchant Marine, Ltd., and its subsidiary companies, although inactive since 1936, had not been surrendered and in 1940 the Company was reconstituted and is operating on behalf of the Canadian Government certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court.

Canadian National (West Indies) Steamships.—In conformity with the Canada-West Indies Trade Agreement Act of 1926 (16-17 Geo. V, c. 16), the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships, Ltd. Due to war restrictions, no information later than that published at p. 588 of the 1941 Year Book has been made available.

8.—Financial Statistics of Canadian National (West Indies) Steamships, Ltd., 1937-46

Note.—Statistics for 1929-36 are given at p. 620 of the 1942 Year Book.

Year	Operating Revenues	Operating Expenses	Operating Net	Depreciation	Interest	Book Loss or Surplus
	$	$	$	$	$	$
1937	4,676,684	4,018,146	+658,538	328,287	808,432	−481,275
1938	4,915,355	4,169,116	+746,239	328,641	818,613	−404,109
1939	4,642,306	4,018,447	+623,859	328,829	816,366	−524,429
1940	5,750,341	4,545,306	+1,205,035	329,079	816,661	−12,733
1941	6,756,464	5,029,107	+1,727,357	262,645	816,701	+593,216
1942	5,600,496	4,220,219	+1,380,277	160,634	816,701	+273,880
1943	4,492,189	2,949,216	+1,542,973	239,363	813,073	+438,837
1944	5,378,059	3,160,568	+2,217,491	243,158	651,246	+1,271,387
1945	4,412,252	2,569,626	+1,842,626	279,466	612,999	+1,116,086
1946	6,669,129	4,671,148	+1,997,981	288,092	596,499	+1,302,052

Section 2.—Financial Statistics of Waterways

The principal statistics available that give any idea of the cost of water-borne traffic consist of the record of public expenditures on waterways. Such expenditures may be classified as capital expenditures, or investments and expenditures for maintenance and operation. Revenues from operation are also recorded. Undoubtedly, in so far as capital expenditures for the permanent improvement of waterways are concerned, those of the Federal Government cover the major part. There has been some expenditure by municipalities on local harbour facilities, and private capital expenditure is also confined almost entirely to terminal or dockage facilities. The investment in shipping, however, with the exception of the Canadian Government Merchant Marine and the Canadian National (West Indies) Steamships, has come almost entirely from private sources. No figures are available regarding private investments in shipping except those appearing in the reports of the operating companies which cover only a portion of the field. Neither are there statistics showing the revenues of ship operators from passenger and freight traffic.

Capital Expenditures.—So far as capital expenditures on Canadian waterways are concerned, the only figures available are those compiled from the Balance Sheet of the Dominion or the annual reports of the Departments of Transport, Public Works and Finance, but such investments or capital expenditures cannot be regarded as any indication of the present worth of the undertakings represented. The costs of building canals and other waterways and permanent works to facilitate water transportation in Canada are represented in such reports at their original book values, no deductions having been made from the cumulative totals for depreciation from year to year or for abandonment of earlier works where they had been superseded, as in the first Welland Canals for instance. To this extent such figures are an overstatement of the present value of the works in use. There is a further limitation that should be noted in regard to such figures: they do not include the costs of maintenance and improvements or the operation of these works, such charges having been made to the Consolidated Deficit Account as annual expenditures and not to capital account. Table **9**, which shows capital expenditures on canals, marine service and miscellaneous water-transport facilities to have reached the grand total of over $383,000,000, must be interpreted with the above qualifications in mind. In Table **10** the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1945 and 1946: these are in addition to the capital expenditures of Table **9**. These figures reflect the capital situation in regard to the national harbours of Canada far better than do those of Table **9**

in the case of waterways and facilities, inasmuch as they include all buildings, machinery and durable plant improvements; they have also been subject to deductions for depreciation and the scrapping or abandonment of plant and more nearly approach the present value of the properties under the administration of the National Harbours Board.

9.—Capital Expenditures of the Federal Government on Canals, Marine Service and Miscellaneous Water Transport Facilities, as at Mar. 31, 1945 and 1946

NOTE.—Compiled from the Annual Reports of the Department of Transport, the Department of Finance and the Department of Public Works.

Item	Expenditures: Years Ended Mar. 31— 1945	Expenditures: Years Ended Mar. 31— 1946	Expenditures: Total to Mar. 31, 1946
	$	$	$
Canals			
Quebec Canals—			
Beauharnois (old)...	Cr. 500	Nil	1,635,469
Carillon and Grenville..............	Nil	"	4,191,727
Chambly (Richelieu R.).....	"	"	780,819
Lachine.............	"	Cr. 6,649	13,981,652
Lake St. Francis....	"	Nil	75,907
Lake St. Louis......	"	"	298,176
Soulanges...........	"	"	7,899,870
Ste. Annes..........	"	"	1,320,216
St. Ours (Richelieu R.).....	"	"	735,964
Ontario — St. Lawrence Canals—			
Cornwall...........	"	"	7,245,803
Williamsburg Canals.............	"	"	1,334,552
Farran Point.....	"	"	877,091
Rapide Plat......	"	"	2,159,881
Galops...........	"	"	6,143,468
Galops Channel...	"	"	1,039,896
North Channel...	"	"	1,995,143
River Reaches.....	"	"	483,830
St. Peters, N.S.....	"	"	648,547
Culbute Lock and Dam (Ottawa R.)..	"	"	382,391
Rideau..............	"	"	4,214,211
Tay...............	"	"	489,599
St. Lawrence Ship (surveys)...........	"	"	133,897
Sault Ste. Marie.....	"	"	4,935,809
Trent...............	"	Cr. 2,350	19,960,224
Murray............	"	Nil	1,248,947
Welland Ship........	Cr. 122	Cr. 6,661	131,889,881
Prior Welland Canals	Cr.19,957	Cr. 6,775	27,449,102
Canals generally.....	Nil	Nil	34,967
Adjustment suspense.	"	"	165,361
Totals, Canals....	**Cr.20,579**	**Cr.22,435**	**243,752,400**
Marine Service			
River St. Lawrence Ship Channel.......	910,817	948,701	86,632,713
Tug *Ocean Eagle*.....	Nil	Nil	91,072
Construction of Ice-breaker.........	"	"	760,699
Hopper Barge *Chesterfield*..........	"	"	233,941
Totals, Marine Service...........	**910,817**	**948,701**	**87,718,425**

Item	Expenditures: Years Ended Mar. 31, 1945 and 1946	Expenditures: Total to Mar. 31, 1946
	$	$
Miscellaneous Facilities[1]		
Bare Point breakwater.......	Nil	217,996
Burlington Bay Canal........	"	308,328
Burlington Channel improvements....................	"	1,392,490
Cape Tormentine Harbour...	"	95,000
Esquimalt graving dock.....	"	7,799,761
Georgian Bay to Montreal waterway survey..........	"	918,797
Halifax elevator site..........	"	86,512
Kingston graving dock.......	"	556,589
Lake St. Peter..............	"	1,164,235
Lévis graving dock..........	"	971,593
Miscellaneous wharves.......	"	1,201,132
Port Arthur, Fort William and River Kaministikwia improvements...	"	16,249,020
Port Colborne Harbour......	"	904,459
Rainy River Lock and Dam.	"	134
Sorel Harbour improvements.	"	1,806,541
St. Andrews Rapids and Red River improvements......	"	1,569,777
Tiffin Harbour improvements	"	481,622
Toronto Harbour improvements......................	"	9,331,987
Upper St. Lawrence River Channel improvements...	"	468,098
Victoria, B.C., Harbour improvements...............	"	5,131,025
Victoria, Ont., Harbour improvements................	"	761,802
Totals....................	—	**51,416,898**

Summary	Years Ended Mar. 31— 1945	Years Ended Mar. 31— 1946	Total to Mar. 31, 1946
	$	$	$
Canals..............	Cr.20,579	Cr.22,435	243,752,400
Marine service.....	910,817	948,701	87,718,425
Miscellaneous facilities.........	225,664	Nil	51,416,898
Grand Totals....	**1,115,902**	**926,266**	**382,887,723**

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[1] These are works not covered elsewhere in these tables, and shown in the "Public Accounts", as Schedule "K" to the Balance Sheet.

10.—Capital Values of Fixed Assets Administered by the National Harbours Board, as at Dec. 31, 1945 and 1946

NOTE.—Compiled from the Annual Reports of the National Harbours Board.

Item	1945	1946	Item	1945	1946
	$	$		$	$
Harbour dredging	12,270,897	12,270,897	Harbour buildings	743,264	744,907
Real estate	12,760,834	12,760,107	Central heating plants	148,379	148,379
Vehicular bridges	300,573	300,573	Harbour shops	332,358	333,705
Roads, fences and boundaries	1,760,539	1,760,539	Electric power systems	1,060,732	1,068,861
Sewers and drains	663,600	663,600	Water supply systems	744,314	744,339
Miscellaneous structures	746,844	751,136	Floating equipment	2,013,265	2,055,402
Wharves and piers	89,480,348	89,490,536	Shore equipment	785,110	858,978
Permanent sheds	19,710,727	19,713,510	Miscellaneous small plant	565,099	565,162
Shed hoists and electrical cranes	248,973	248,973	Engineering — general surveys	606,403	606,403
Railway systems	6,981,671	7,004,861	Works under construction	338,657	599,276
Grain elevator systems	41,916,269	41,908,269	Sundry expenditure—undistributed	5,395,832	5,395,832
Cold-storage systems	5,728,436	5,723,481	Bridge construction, right-of-way, etc	19,318,490	19,164,920
Office furniture and appliances	140,528	144,625	**Totals**	**224,762,142**	**225,027,271**

11.—Amounts Advanced by the Federal Government to the Harbour Boards for Capital Expenditures, 1944-46

NOTE.—Compiled from the Annual Reports of the National Harbours Board.

Harbours and Properties	1944	1945	1946	Harbours and Properties	1944	1945	1946
	$	$	$		$	$	$
Halifax	147,021	181,344	212,320	Prescott elevator	Nil	Nil	Nil
Saint John	31,885	Nil	5,600	Port Colborne elevator	"	"	819
Chicoutimi	Nil	"	Nil	Churchill	"	"	3,562
Quebec	"	"	16,257	Vancouver	22,992	18,315	43,372
Three Rivers	"	867	1,550	Second Narrows bridge	Nil	Nil	Nil
Montreal	18,767	44,676	223,432	Head Office	"	"	"
Jacques Cartier bridge	Nil	Nil	Nil	**Totals**	**220,665**	**245,202**	**506,912**

Waterway Expenditures and Revenues on Consolidated Fund Account.—Expenditures under this heading (Tables **12** to **14**) are mainly for the operation and maintenance of varous facilities for water transport, but unfortunately the line between operation and maintenance expenditure is not as finely drawn as is desirable.

In addition to the recurrent expenditures to facilitate water transportation shown here, the Federal Government annually expends a considerable amount to cover deficits of the Canadian National (West Indies) Steamships, Ltd., and of the National Harbours Board, for mail subsidies and steamship subventions as shown in Table **17**, and for the maintenance and operation of radio stations to aid navigation as shown in Table **3** of Part VII at p. 731. Operating expenditures and revenues of facilities administered by the National Harbours Board are shown separately in Table **16**. The National Harbours Board operates as a statutory corporation. The improvement in the financial results since control was unified under the Board, is indicated by the increase of consolidated operating income from $2,452,000 in 1935 to $5,062,221 in 1946.

12.—Expenditures on Canals Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1945 and 1946

Note.—Compiled from the Annual Reports of the Department of Transport.

EXPENDITURES ON IMPROVEMENTS

Item	Years Ended Mar. 31—		Total to Mar. 31, 1946	Item	Years Ended Mar. 31—		Total to Mar. 31, 1946
	1945	1946			1945	1946	
	$	$	$		$	$	$
Main Canals—				Secondary Canals—			
Quebec Canals—				Carillon and Grenville	17,772	3,913	637,658
Beauharnois (old)	Nil	Nil	355,640	Chambly (Richelieu R.)	Nil	2,308	1,254,602
Hungry Bay Dyke	"	"	47,223	Rideau and Tay	8,500	4,980	1,100,744
Lachine	"	14,062	3,133,797	Ste. Annes	Nil	Nil	232,812
Lake St. Francis	"	Nil	55,324	St. Ours (Richelieu R.)	"	3,233	199,633
Quebec Dredging Fleet	"	"	96,722	St. Peters, N.S.	11,811	9,799	898,526
Soulanges	"	"	609,535	Trent	787	17,108	4,355,183
Ontario-St. Lawrence Canals—	"	"	322,406	Murray	Nil	Nil	142,554
Cornwall	4,571	7,994	778,611	Miscellaneous—			
Williamsburg	4,446	Nil	459,216	Bay Verte, Chignecto, N.S.	"	"	44,388
Welland Canals—				Culbute Lock and Dam (Ottawa R.)	"	"	60,923
Welland Ship	12,242	30,655	1,437,858	St. Lawrence Ship (surveys, etc.)	458	901	625,503
Prior Welland Canals	Nil	Nil	2,650,121	Surveys and inspections	Nil	Nil	572,990
Sault Ste. Marie	57,422	61,446	547,707	Canals generally	"	"	190,509
				Totals	**118,009**	**156,399**	**20,810,185**

EXPENDITURES ON OPERATION AND MAINTENANCE

Item	Year Ended Mar. 31, 1945			Year Ended Mar. 31, 1946		
	Operation	Maintenance	Total	Operation	Maintenance	Total
	$	$	$	$	$	$
Administration, Ottawa	35,643	Nil	35,643	42,951	Nil	42,951
Quebec Canals—						
Head office	43,147	"	43,147	35,552	"	35,552
Carillon and Grenville Canals	37,917	34,858	72,775	43,806	80,777	124,583
Chambly (Richelieu R.)	47,252	32,583	79,835	54,275	30,267	84,542
Hungry Bay and Ste. Barbe Dykes	Nil	2,630	2,630	Nil	2,786	2,786
Lachine	245,299	138,948	384,247	255,381	147,775	403,156
Quebec Dredging Fleet	32,899	17,920	50,819	31,600	16,508	48,108
Soulanges	93,870	71,683	165,553	100,955	63,206	164,161
Ste. Annes	8,091	4,757	12,848	7,070	5,212	12,282
St. Ours (Richelieu R.)	4,583	3,711	8,294	6,391	4,234	10,625
Ontario-St. Lawrence Canals—						
Head office	44,717	9,726	54,443	38,809	10,348	49,157
Cornwall	112,940	87,587	200,527	123,276	93,081	216,357
Williamsburg Canals	80,205	19,334	99,539	87,411	20,149	107,560
St. Peters, N.S.	17,358	2,597	19,955	17,765	4,001	21,766
Rideau and Tay Canals	112,315	81,855	194,170	123,076	74,988	198,064
Sault Ste. Marie	51,628	26,952	78,580	57,089	26,239	83,328
Trent	175,953	46,237	222,190	185,914	50,195	236,109
Murray	8,424	4,810	13,234	9,615	4,846	14,461
Welland Canals	566,678	224,458	791,136	546,689	240,140	786,829
Totals	**1,718,919**	**810,646**	**2,529,565**	**1,767,625**	**874,752**	**2,642,377**

13.—Marine Service Expenditures Charged to Consolidated Deficit Account, Years Ended Mar. 31, 1945 and 1946

NOTE.—Compiled from the Annual Reports of the Department of Transport.

Item	1945	1946	Item	1945	1946
	$	$		$	$
Marine Service—Administration	15,039	14,937	Breaking Ice—Thunder Bay	30,000	30,000
Floating Equipment—Administration	20,642	20,666	Steamship Inspection	209,222	218,535
Nautical Services—Administration	25,901	28,678	Government Wharves	31,630	Nil
Maintenance and Operation of Steamers (incl. ice-breakers)	1,579,285	1,525,532	Agencies, Salaries and Office Expenses	280,033	278,528
Navigation and Shipping—Miscellaneous	102,370	48,364	St. Lawrence Ship Channel—Maintenance and Operation	184,821	215,342
Life-Saving Service	43,230	41,606	Grants to Sailors' Institutes	600	600
Marine Signal Service	82,127	84,076	Pensions to Pilots	2,506	2,398
Administration of Pilotage	147,400	156,621	Compassionate Allowances	480	2,133
Subsidies for Wrecking Plants	45,000	45,000	Government Employees' Compensation Act	20,545	22,610
Aids to Navigation (Construction, Maintenance and Supervision)	2,094,575	2,178,940	Marine Service—War Appropriations	1,362,557 Cr.13,104[1]	293,695 –
Maintenance and Repairs to Wharves	2,161	2,984	**Totals**	**6,267,020**	**5,211,245**

[1] Adjustment for prior fiscal years.

14.—Expenditures on Waterways Charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1945 and 1946

NOTE.—Compiled from the Annual Reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

Year and Item	Dredging	Construction	Improvements and Repairs	Staff and Sundries	Total
	$	$	$	$	$
1945					
HARBOURS[1] AND RIVERS					
Prince Edward Island	17,840	5,905	43,630	23,475	90,850
Nova Scotia	177,650	430,883	356,875	93,568	1,058,976
New Brunswick	301,219	1,351	76,100	298,714	677,384
Quebec	129,665	292,134	232,430	408,098	1,062,327
Ontario	146,428	51,420	94,928	191,224	484,000
Manitoba	30,817	4,175	6,996	66,895	108,883
Saskatchewan	548	Nil	Nil	911	1,459
Alberta	41,221	665	957	781	43,624
British Columbia	237,656	42,633	327,267	379,338	986,894
Yukon	Nil	Nil	Nil	Nil	–
Northwest Territories	"	"	"	"	–
General	"	"	"	18,488	18,488
TOTALS, HARBOURS[1] AND RIVERS	1,083,044	829,166	1,139,183	1,481,492	4,532,885
Dredging plant	Nil	Nil	96,918	Nil	96,918
Roads and bridges	"	"	21,581	46,595	68,176
Totals, 1945	**1,083,044**	**829,166**	**1,257,682**	**1,528,087**	**4,697,979**
1946					
HARBOURS[1] AND RIVERS					
Prince Edward Island	46,354	4,852	32,618	17,760	101,584
Nova Scotia	249,843	178,699	385,251	61,928	875,721
New Brunswick	88,164	37,480	104,877	294,101	524,621
Quebec	290,996	278,889	170,653	354,909	1,095,447
Ontario	393,529	116,599	132,590	133,007	775,725
Manitoba	39,734	198	2,066	63,475	105,476
Saskatchewan	Nil	Nil	Nil	923	923
Alberta	"	"	1,000	495	1,494
British Columbia	317,793	367,636	89,525	345,925	1,120,879
Yukon	Nil	Nil	2,121	Nil	2,121
Northwest Territories	"	6,770	33	348	7,147
General	"	Nil	Nil	22,589	22,589
TOTALS, HARBOURS[1] AND RIVERS	1,426,412	991,123	920,734	1,295,456	4,633,725
Dredging plant	Nil	143,025	27,486	Nil	170,511
Roads and bridges	"	370,537	27,487	60,342	458,366
Totals, 1946	**1,426,412**	**1,504,685**	**975,707**	**1,355,798**	**5,262,602**

[1] Exclusive of harbours under the National Harbours Board as shown in Table 16.

15.—Revenues of the Federal Government in Connection with Waterways, Years Ended Mar. 31, 1945 and 1946

NOTE.—Compiled from Annual Reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

Item	1945	1946
	$	$
Department of Transport		
CANALS SERVICE		
Lachine	251,026	260,656
Soulanges	1,147	1,024
Chambly	1,531	1,543
Ste. Anne Lock	248	314
Carillon and Grenville	379	350
Beauharnois	61,822	62,616
Cornwall	45,994	43,155
Williamsburg	4,255	3,531
St. Peters	198	192
Welland Canals	364,970	376,935
Sault Ste. Marie	490	392
Rideau	11,828	14,232
Trent	84,065	83,507
Murray	293	287
Fines and forfeitures	641	465
Sundries	3	24
Sale of publications	198	655
Premium, discount and exchange	102	81
Sundry services	261	72
Sundry sales	10	4,407
Salvage material	1,790	Nil
Rental of equipment	7,699	4,379
Refund of previous year's expenditures	56,303	5,686
TOTALS, CANALS SERVICE	895,253	864,503
MARINE SERVICE		
Fines and forfeitures	22,064	45,888
Steamship inspection	163,921	167,046
Wharf revenue	194,846	169,392
Harbour dues	23,257	31,340
Measuring surveyors' fees	9,917	4,244
Examinations—masters' and mates' fees	4,797	5,401
Pilots licence fees (Pilotage)	187	76
Marine registry fees	98	125
Marine steamers earnings	12,890	200[1]
Signal station dues	2,298	1,418
Rents	8,751	9,450
Miscellaneous sales including salvage material	7,881	3,325
Sale of publications	1,184	1,651
Premium, discount and exchange	281	92
Sundry services	Nil	59
Nautical discharge certificates	89	491
Shipping masters' fees	306	Nil
Dominion lighthouse depot—Prescott—Cash Surplus—War 1939-45	2,186,695	152,639
MARINE SERVICE—concluded		
Rental of equipment	12,852	9,438
Refund of previous year's expenditures	11,781	17,527
—War 1939-45	789	106,789
Sale surplus assets—War 1939-45	Nil	81
TOTALS, MARINE SERVICE	2,664,884	726,672
BOARD OF TRANSPORT COMMISSIONERS		
Licences to ships	1,799	1,606
Sale of publications	110	272
TOTALS, BOARD OF TRANSPORT COMMISSIONERS	1,909	1,878
Totals, Dept. of Transport	**3,562,046**	**1,593,053**
Department of Public Works		
EARNINGS OF DRY DOCKS		
Champlain Dock, Lauzon, Que	87,593	86,895
Lorne Dock, Lauzon, Que	44,248	38,404
Esquimalt new dock	169,598	184,521
Selkirk repair slip	1,709	1,933
TOTALS, EARNINGS	303,148	311,752
WORKS AND PLANTS LEASED		
Kingston dry dock	6,050	6,050
Ferry privileges	479	485
Dredges and plants	25,678	23,714
TOTALS, LEASES	32,207	30,249
Sale of old vessels, materials, etc	26,271	Nil
Sale of real estate	50,150	267
Rents from water lots, etc	14,498	20,505
Refunds against expenditures reported in previous years	15,734	5,547
Sundry receipts	599	210
Totals, Dept. of Public Works	**442,607**	**368,529**

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[1] Exclusive of a refund of $770.04, made to the Norwegian Shipping and Trade Mission in connection with salvage service rendered to the S.S. *Benca*.

16.—Operating Revenues and Expenditures of Harbours, Elevators and Bridges under the National Harbours Board, 1942-46

NOTE.—Locally controlled commissions for the harbours shown below were abolished Nov. 1, 1935.

Item and Year	Operating Revenues	Operating Expenses	Operating Income	Item and Year	Operating Revenues	Operating Expenses	Operating Income
	$	$	$		$	$	$
Halifax—				**Vancouver—**			
1942	1,832,318	889,120	943,198	1942	1,568,977	588,502	980,475
1943	1,848,330	1,000,664	847,666	1943	1,736,959	670,930	1,066,029
1944	1,801,217	1,116,104	685,113	1944	2,138,667	916,768	1,221,899
1945	1,653,732	1,033,935	619,797	1945	2,199,550	956,434	1,243,116
1946	1,243,649	834,713	408,936	1946	2,184,238	918,664	1,265,574
Saint John—				**Churchill—**			
1942	1,133,509	319,114	814,395	1942	144,783	139,348	5,435
1943	1,492,579	440,134	1,052,445	1943	95,860	132,372	−36,512
1944	1,423,537	512,482	911,055	1944	71,028	128,635	−57,607
1945	1,458,507	494,698	963,809	1945	66,785	152,666	−85,881
1946	933,497	459,627	473,870	1946	72,713	173,225	−100,512
Chicoutimi—				**Port Colborne Elevator—**			
1942	30,067	16,887	13,180	1942	171,280	73,100	98,180
1943	32,016	25,880	6,136	1943	129,905	74,153	55,752
1944	31,924	18,402	13,522	1944	239,703	97,107	142,596
1945	30,723	20,719	10,004	1945	292,777	145,711	147,066
1946	32,666	17,178	15,488	1946	223,631	140,494	83,137
Quebec—				**Prescott Elevator—**			
1942	620,030	760,012	−139,982	1942	233,719	82,400	151,319
1943	762,644	643,458	119,186	1943	112,692	74,418	38,274
1944	913,706	669,903	243,803	1944	257,750	110,575	147,175
1945	944,190	797,714	146,476	1945	195,723	119,422	76,301
1946	672,264	678,427	−6,163	1946	111,911	101,812	10,099
Three Rivers—				**Jacques Cartier Bridge (Montreal)**			
1942	185,738	22,603	163,135	1942	537,406	102,903	434,503
1943	199,023	18,011	181,012	1943	520,120	97,020	423,100
1944	224,934	55,490	169,444	1944	600,238	99,098	501,140
1945	294,648	32,165	262,483	1945	604,629	105,422	499,207
1946	229,882	29,822	200,060	1946	730,701	113,337	617,364
Montreal—				**Second Narrows Bridge (Vancouver)**			
1942	3,797,440	2,167,596	1,629,844	1942	161,535	58,193	103,342
1943	3,786,305	2,039,507	1,746,798	1943	144,645	61,024	83,621
1944	4,698,030	2,212,489	2,485,541	1944	137,585	62,037	75,548
1945	5,484,859	2,928,685	2,556,174	1945	169,701	63,677	106,024
1946	4,897,323	2,937,201	1,960,122	1946	189,076	61,925	127,151

Shipping Subsidies.—The figures given in Table **17** represent the amounts paid in connection with contracts made under statutory authority by the Department of Trade and Commerce for trade services, including the conveyance of mails.

17.—Mail Subsidies and Steamship Subventions, Years Ended Mar. 31, 1944-46

Service	1944	1945	1946
	$	$	$
Pacific Coast Services—			
Prince Rupert, B.C., and Queen Charlotte Islands	22,000	22,000	22,000
Vancouver and northern ports of British Columbia	15,000	15,000	15,000
Victoria, Vancouver, way ports and Skagway	10,000	10,000	10,000
Victoria and west coast Vancouver Island	10,000	10,000	10,000
Local Services—			
Baddeck and Iona	12,000	12,000	12,000
Chester and Tancook Island (winter)	1,600	2,400	2,500
Dalhousie and Miguasha	Nil	Nil	12,000
Grand Manan and the mainland	33,000	32,567	33,000
Halifax, Canso and Guysborough	7,430	6,667	6,944

17.—Mail Subsidies and Steamship Subventions, Years Ended Mar. 31, 1944-46—conc.

Service	1944	1945	1946
	$	$	$
Local Services—concluded			
Halifax, LaHave and LaHave River ports	3,000	3,000	3,000
Halifax, Sherbrooke, Spry Bay and Tor Bay	6,500	6,500	6,500
Halifax, south Cape Breton, Bras d'Or Lakes and Bay St. Lawrence	Nil	Nil	Nil
Halifax and west coast of Cape Breton	3,923	6,000	6,000
Ile aux Coudres and Les Eboulements	1,900	3,500	3,500
Ile aux Coudres and Quebec or Lévis	Nil	Nil	4,000
Mulgrave and Arichat	“	19,151	25,000
Mulgrave, Arichat and Canso	37,000	Nil	Nil
Mulgrave and Canso	Nil	64,000	64,000
Mulgrave and Guysborough, calling at intermediate ports	14,000	14,000	14,000
Murray Bay and north shore (winter service)	50,000	50,000	50,000
Owen Sound and Manitoulin Islands	35,000	35,000	35,000
Pelee Island and the mainland	11,000	11,000	11,000
Pictou, Mulgrave and Cheticamp	11,000	11,000	10,875
Pictou, Souris and the Magdalen Islands	55,000	60,000	61,832
Prescott, Ont. and Ogdensburg, N.Y.	11,640	11,640	11,640
Prince Edward Island and Newfoundland	4,500	15,750	45,000
Prince Edward Island and Nova Scotia	44,000	36,714	37,000
Quebec, Natashquan and Harrington, and other ports on the north shore of the Gulf of St. Lawrence	127,500	127,500	127,500
Quebec or Montreal and Gaspe, and other ports on the south shore of the Gulf of St. Lawrence	90,000	90,000	90,000
Rimouski, Matane, and the north shore of the Lower St. Lawrence	75,000	75,000	75,000
Rivière-du-Loup and Tadoussac, and other north-shore ports	21,000	21,000	21,000
Saint John, Bear River, Annapolis and Granville	Nil	Nil	Nil
Saint John and Minas Basin ports	4,423	5,000	10,000
Saint John, Westport and Yarmouth, and other way ports	10,000	13,500	23,500
Sydney and Bay St. Lawrence, calling at way ports	22,500	25,000	35,000
Sydney and Bras d'Or Lake ports, and ports on the west coast of Cape Breton and Prince Edward Island	22,500	22,500	22,500
Sydney and Whycocomagh	16,000	18,000	20,500
Yarmouth, N.S. and Boston, Mass	Nil	Nil	43,000
Administration expenses	11,236	13,310	13,981
Totals	**799,652**	**868,699**	**993,773**

In addition to the regular subsidies indicated above, additional assistance was given during the year ended Mar. 31, 1946, to certain subsidized lines, from the Steamship Subsidies War Stabilization Fund, established by Order in Council, July 2, 1942, P.C. 5653, and amended by Order in Council, July 25, 1946, P.C. 3020, for the purpose of refunding to such lines actual amounts paid out by them as war bonuses to crews, war risk insurance, and increased costs of fuel and marine insurance over the basic period Sept. 15 to Oct. 11, 1941. Amounts paid were:—

Vancouver and northern British Columbia ports	$ 156,641
Mulgrave and Canso	9,822
Mulgrave and Arichat	1,611
Grand Manan and the mainland	9,669
Victoria and west coast Vancouver Island	42,684
Mulgrave and Guysborough	310
Murray Bay and north shore (winter service)	13,752
Sydney and west coast Cape Breton Island and Prince Edward Island	6,263
Pictou, Mulgrave and Cheticamp	491
Pictou, Souris and Magdalen Islands	11,002
Prince Edward Island and Nova Scotia	3,025
Quebec, Natashquan and Harrington	42,321
Quebec or Montreal and Gaspe	13,585
Rimouski, Matane and north shore	15,747
Rivière-du-Loup and St. Simeon and/or Tadoussac	2,482
Saint John and Minas Basin	1,128
Saint John, Westport and Yarmouth	8,554
Sydney and Bay St. Lawrence	4,737
Sydney and Whycocomagh	3,144
TOTAL	$ 346,965

Section 3.—Water Traffic and Services

Complete statistics, comparable with those given for the railways, showing all the freight carried by water, are not available. Indeed it would be very difficult to obtain a record of the traffic handled by small independent coasting vessels. However, there is a record of the number and tonnage of ships calling at all ports at which there are customs collectors, of cargoes of vessels trading between Canadian and foreign ports and of all cargoes that pass through the canals.

Subsection 1.—Shipping

A brief description of the early development of Canadian shipping is given at pp. 597-598 of the 1941 edition of the Year Book. Shipping statistics are compiled from reports collected by customs officers at customs ports: consequently they are affected by customs regulations and include only data for vessels trading in and out of ports at which such officers are employed.

For years prior to and including the year ended Mar. 31, 1937, the statistics were summarized by the customs officer at each port and compiled by the Department of National Revenue; for subsequent years, compilations were made by the Dominion Bureau of Statistics. Effective Apr. 1, 1940, each vessel departing from port makes a statistical report which is forwarded to the Bureau and from these reports all compilations of shipping statistics are made.

With this change of procedure, changes have been made in the recording of the data. Cargoes are required to be reported in tons of 2,000 lb. or in tons of 40 cu. ft. Although previous reports did not define the ton, it is quite probable that for many cargoes the long ton of 2,240 lb. was used. Reports are not made now for vessels of less than 10 registered net tons and the tonnage of tugs is the gross ton and not the net ton used for cargo vessels. Fishing vessels are not required by customs regulation to report when operating from certain ports; consequently, the data are not on the same basis as data for cargo vessels.

18.—Vessels Entered at Canadian Ports, 1936-46

Year Ended Mar. 31	In Foreign Service[1]		In Coasting Service		Total	
	No.	Net Tons Register	No.	Net Tons Register	No.	Net Tons Register
1936	37,800	41,746,953	69,809	42,979,361	107,609	84,726,314
1937	41,755	45,030,914	73,033	45,973,830	114,788	91,004,744
1938	42,582	45,603,055	75,537	44,471,834	118,119	90,074,889
1939	43,601	44,775,116	73,386	45,386,457	116,987	90,161,573
1940	46,241	46,666,396	78,212	44,361,232	124,453	91,027,628
1941	25,122	32,579,900	79,951	50,471,166	105,073	83,051,066
Calendar Year						
1941	26,203	31,452,400	77,592	48,111,082	103,795	79,563,482
1942	24,066	25,640,763	73,366	43,990,764	97,432	69,631,527
1943	22,901	26,345,562	65,066	40,300,778	87,967	66,646,340
1944	23,786	28,356,681	64,999	43,776,497	88,785	72,133,178
1945	24,431	29,655,984	65,410	48,098,201	89,841	77,754,185
1946	26,461	30,367,071	67,014	45,559,014	93,475	75,926,085

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[1] Sea-going and inland international.

19.—Vessels Entered at Each of the Principal Canadian Ports, 1945

NOTE.—For details of shipping at all ports in Canada, see "Shipping Report" of the Dominion Bureau of Statistics.

Province and Port	In Foreign Service[1]		In Coasting Service		Totals	
	No.	Net Tons Register	No.	Net Tons Register	No.	Net Tons Register
Prince Edward Island—						
Charlottetown	11	3,384	40	12,196	51	15,580
Totals, Prince Edward Island[2]	**52**	**7,316**	**121**	**24,754**	**173**	**32,070**
Nova Scotia—						
Digby	79	145,789	411	668,452	490	814,241
Halifax	583	1,813,671	345	278,837	928	2,092,508
North Sydney	1,264	257,867	1,013	124,091	2,277	381,958
Sydney	412	1,026,820	660	533,826	1,072	1,560,646
Yarmouth	345	20,325	395	30,342	740	50,667
Totals, Nova Scotia[2]	**4,278**	**3,583,717**	**5,799**	**2,165,478**	**10,077**	**5,749,195**
New Brunswick—						
Campobello	289	16,974	97	15,419	386	32,393
Saint John	424	1,191,852	1,016	1,136,209	1,440	2,328,061
Totals, New Brunswick[2]	**5,517**	**1,428,081**	**2,098**	**1,346,431**	**7,615**	**2,774,512**
Quebec—						
Baie Comeau	12	20,377	595	216,153	607	236,530
Montreal	1,486	3,015,657	2,205	2,332,229	3,691	5,347,886
Port Alfred	133	255,045	370	500,544	503	755,589
Quebec	243	659,893	2,231	1,835,196	2,474	2,495,089
Three Rivers	248	562,749	1,521	1,390,406	1,769	1,953,155
Totals, Quebec[2]	**2,355**	**4,790,462**	**9,541**	**7,275,756**	**11,896**	**12,066,218**
Ontario—						
Amherstburg	517	455.900	94	107,347	611	563,247
Cobourg	635	2,078,549	64	34,749	699	2,113,298
Cornwall	40	42,249	329	386,878	369	429,127
Fort William	521	1,673,234	931	2,142,093	1,452	3,815,327
Hamilton	274	1,168,752	507	521,983	781	1,690,735
Kingston	475	294,820	619	893,568	1,094	1,188,388
Midland	73	233,567	367	1,053,820	440	1,287,387
Port Arthur	486	1,526,414	1,335	3,614,271	1,821	5,140,685
Port Colborne	100	272,078	571	1,066,449	671	1,338,527
Port McNicoll	5	13,718	296	918,081	301	931,799
Prescott	314	413,887	364	424,770	678	838,657
St. Catharines	22	51,826	211	287,206	233	339,032
Sarnia	423	713,244	758	1,153,817	1,181	1,867,061
Sault Ste. Marie	452	1,370,822	545	1,056,518	997	2,427,340
Thorold	82	173,078	273	394,539	355	567,617
Toronto	562	1,428,096	1,686	1,783,490	2,248	3,211,586
Windsor	398	757,109	293	398,999	691	1,156,108
Totals, Ontario[2]	**6,964**	**14,737,235**	**11,470**	**18,467,116**	**18,434**	**33,204,351**
British Columbia—						
Alert Bay	20	576	456	311,198	476	311,774
Nanaimo	252	33,366	2,794	1,199,412	3,046	1,232,778
New Westminster	93	179,832	2,353	1,301,402	2,446	1,481,234
Ocean Falls	15	21,052	968	676,938	983	697,990
Port Alberni	158	189,649	377	483,984	535	673,633
Powell River	220	76,122	3,106	1,143,417	3,326	1,219,539
Prince Rupert	1,177	410,249	2,069	618,806	3,246	1,029,055
Union Bay	30	6,344	1,152	508,659	1,182	515,003
Vancouver	1,023	2,051,981	17,255	7,743,633	18,278	9,795,614
Victoria	1,368	1,925,962	3,564	3,749,267	4,932	5,675,229
Totals, British Columbia[2]	**5,256**	**5,105,564**	**36,302**	**18,775,883**	**41,558**	**23,881,447**
Yukon and Northwest Territories	**9**	**3,609**	**79**	**42,783**	**88**	**46,392**
Grand Totals	**24,431**	**29,655,984**	**65,410**	**48,098,201**	**89,841**	**77,754,185**

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[1] Sea-going and inland international.

[2] Includes other small ports not shown separately.

Vessels in coasting service and vessels fishing in Canadian waters are not required by customs regulations to report any details of cargoes loaded or unloaded so that cargo data are available only for vessels in foreign service. The cargoes are not cargoes on board but cargoes unloaded and loaded at the respective ports.

20.—Cargoes Loaded and Unloaded at Canadian Ports by Vessels in Foreign Trade, by Provinces, 1942-45

Province and Year	Loaded		Unloaded	
	Tons Weight	Tons Measurement	Tons Weight	Tons Measurement
Prince Edward Island—				
1942	5,431	Nil	3	Nil
1943	6,173	40	6	“
1944	19,798	Nil	4	“
1945	15,180	76	2,041	“
Nova Scotia—				
1942	2,873,968	12,151	2,084,832	47,523
1943	3,168,353	1,911	2,233,412	12,755
1944	3,202,023	17,237	2,266,903	499
1945	2,969,241	49,686	1,738,822	Nil
New Brunswick—				
1942	2,364,881	329,771	318,251	67,612
1943	2,858,989	325,278	409,502	70,609
1944	2,319,590	452,036	443,021	62,217
1945	2,309,061	475,140	512,334	129,738
Quebec—				
1942	2,249,926	213,040	3,727,419	36,027
1943	1,863,890	74,622	4,219,193	8
1944	2,946,991	172,111	3,691,563	36,755
1945	6,853,392	340,639	3,691,905	58,740
Ontario—				
1942	3,754,877	3,000	18,924,782	Nil
1943	6,511,700	Nil	19,548,919	“
1944	7,501,458	“	19,504,912	“
1945	5,955,203	“	16,926,183	3
British Columbia—				
1942	1,743,212	73,131	1,891,243	8,074
1943	1,518,639	187,404	1,368,389	669
1944	2,160,090	163,885	1,647,041	3,083
1945	3,184,483	180,911	1,452,746	16,767
Yukon—				
1942	934	Nil	463	Nil
1943	7,138	“	292	“
1944	764	“	5	“
1945	875	“	67	“
Totals—				
1942	**12,993,229**	**631,093**	**26,946,993**	**159,236**
1943	**15,934,882**	**589,255**	**27,779,713**	**84,041**
1944	**18,150,714**	**805,269**	**27,553,449**	**102,554**
1945	**21,287,435**	**1,046,452**	**24,324,098**	**205,248**

Subsection 2.—Canal Traffic

Since the canals of Canada are open to the vessels and traffic of all nations upon equal terms, United States traffic constitutes an important part of the total carried through certain canals, especially the Welland Ship Canal. This is shown in Tables **21** and **23**. More complete details of the traffic through canals may be found in the annual report "Canal Statistics" published by the Dominion Bureau of Statistics.

21.—Traffic Through Canadian Canals, by Nationality of Vessels and Origin of Freight, Navigation Seasons, 1936-46

NOTE.—Figures include duplications where cargoes use two or more canals. For Canadian canal traffic from 1886-99, see the 1902 Year Book, p. 398; for figures for 1900-10, the 1933 Year Book, p. 697; and for 1911-35, p. 703 of the 1938 edition.

Navigation Season	Nationality of Vessel				Origin of Freight Carried				
	Canadian		United States[1]		Canada		United States		Total
	No.	Registered Tonnage	No.	Registered Tonnage	Tons	P.C. of Total	Tons	P.C. of Total	Tons
1936..	25,251	17,085,749	2,708	3,208,829	13,465,460	62·7	8,003,356	37·3	21,468,816
1937..	24,669	17,904,774	2,869	3,526,939	11,911,241	51·0	11,439,759	49·0	23,351,000
1938..	25,365	19,803,447	2,374	2,932,799	12,988,349	52·7	11,648,113	47·3	24,636,462
1939..	24,768	18,240,632	2,757	3,095,648	14,150,305	60·5	9,240,772	39·5	23,391,077
1940..	23,646	18,513,994	3,194	4,056,089	12,257,336	53·6	10,613,217	46·4	22,870,553
1941..	24,418	20,211,209	3,456	5,420,815	10,334,174	44·1	13,119,193	55·9	23,453,367
1942..	22,150	18,952,917	3,751	8,404,363	7,764,804	37·2	13,134,835	62·8	20,899,639
1943..	20,855	18,273,304	2,617	5,686,958	7,838,429	36·5	13,637,765	63·5	21,476,194
1944..	20,780	18,191,826	1,911	4,541,575	8,002,746	38·8	12,612,761	61·2	20,615,507
1945..	21,064	19,068,308	1,553	3,426,069	10,491,263	47·0	11,829,136	53·0	22,320,399
1946..	17,199	16,206,415	1,794	3,221,008	8,889,782	47·7	9,765,137	52·3	18,654,919

[1] Figures include a small percentage of vessels of other foreign nationalities.

22.—Tonnage of Canal Traffic, by Canal and Class of Product, Navigation Season, 1946

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	Agricultural Products	Animal Products	Manufactures and Miscellaneous	Forest Products	Mineral Products	Total
	tons	tons	tons	tons	tons	tons
Sault Ste. Marie............	1,032,787	175	576,826	166,266	164,075	1,940,129
Welland Ship...............	2,084,398	216	3,037,954	375,784	5,081,794	10,580,146
St. Lawrence River.........	1,068,351	3,652	1,391,417	439,897	2,847,261	5,750,578
Richelieu River............	Nil	35	33,491	Nil	5,755	39,281
St. Peters.................	1,909	795	12,630	148	5,195	20,677
Murray.....................	Nil	Nil	7,260	Nil	Nil	7,260
Ottawa River...............	"	"	47,685	"	213,610	261,295
Rideau.....................	"	"	186	433	820	1,439
Trent......................	1	"	36,543	64	4	36,612
St. Andrews................	638	2,669	5,832	8,100	263	17,502
Totals.................	**4,188,084**	**7,542**	**5,149,824**	**990,692**	**8,318,777**	**18,654,919**

23.—Canal Traffic, by Direction and Origin, Navigation Season, 1946

NOTE.—Figures include duplications where cargoes use two or more canals.

Canal	From Canadian to Canadian Ports		From Canadian to United States Ports[1]		From United States[1] to United States Ports[1]		From United States[1] to Canadian Ports	
	Up	Down	Up	Down	Up	Down	Up	Down
	tons	tons	tons	tons	tons	tons	tons	tons
Sault Ste. Marie...	426,671	1,090,110	9,058	198,367	36,478	15,763	163,682	Nil
Welland Ship......	783,630	2,444,348	401,207	14,937	200,006	735,747	30,942	5,969,329
St.Lawrence River	1,203,779	1,551,065	378,983	18,512	45,256	51,437	16,237	2,485,309
Richelieu River...	Nil	1,204	24,506	Nil	Nil	Nil	Nil	13,571
St. Peters.........	12,443	6,181	673	"	"	"	55	1,325
Murray...........	Nil	7,260	Nil	"	"	"	Nil	Nil
Ottawa River.....	45,417	212,450	"	3,428	"	"	"	"
Rideau...........	613	826	"	Nil	"	"	"	"
Trent............	68	36,544	"	"	"	"	"	"
St. Andrews.......	10,919	6,583	"	"	"	"	"	"
Totals........	**2,483,549**	**5,356,571**	**814,427**	**235,244**	**281,740**	**802,947**	**210,916**	**8,469,534**

For footnote, see end of table, p. 708.

23.—Canal Traffic, by Direction and Origin, Navigation Season, 1946—concluded

Canal	Traffic by Direction		Origins of Cargo		Total Cargo	Comparison with 1945
	Up	Down	Canada	United States[1]		
	tons	tons	tons	tons	tons	tons
Sault Ste. Marie	635,889	1,304,240	1,724,206	215,923	1,940,129	−78,757
Welland Ship	1,415,785	9,164,361	3,644,122	6,936,024	10,580,146	−2,382,186
St. Lawrence River	1,644,255	4,106,323	3,152,339	2,598,239	5,750,578	−1,197,292
Richelieu River	24,506	14,775	39,281	Nil	39,281	−7,297
St. Peters	13,171	7,506	20,677	"	20,677	−988
Murray	Nil	7,260	7,260	"	7,260	+5,055
Ottawa River	45,417	215,878	261,295	"	261,295	+3,123
Rideau	613	826	1,439	"	1,439	+576
Trent	68	36,544	36,612	"	36,612	−14,000
St. Andrews	10,919	6,583	17,502	"	17,502	+6,286
Totals	**3,790,623**	**14,864,296**	**8,904,733**	**9,750,186**	**18,654,919**	**−3,665,480**

[1] Figures for the United States include a small percentage to or from ports of other foreign countries.

The figures in Tables **21** and **23** include duplications where the same freight passes through two or more canals, but in Table **24** duplications in the traffic passing through the St. Lawrence and Welland Ship Canals and the Canadian lock at Sault Ste. Marie, which amounted to 3,881,423 tons in 1945 and 3,242,872 tons in 1946, have been eliminated.

Grain transhipped at Georgian Bay, Lake Erie, or other ports above Montreal is treated as new cargo and as most of this grain has passed through either the Canadian or United States locks at Sault Ste. Marie there are still duplications in the data because of this treatment. These duplications cannot be avoided when net totals for the Canadian canals are computed because it is impossible to ascertain which lock at Sault Ste. Marie was used by the grain reloaded at Port Colborne or other transhipping port.

24.— St. Lawrence-Great Lakes Traffic Using St. Lawrence, Welland Ship and Sault Ste. Marie Canals, 1946

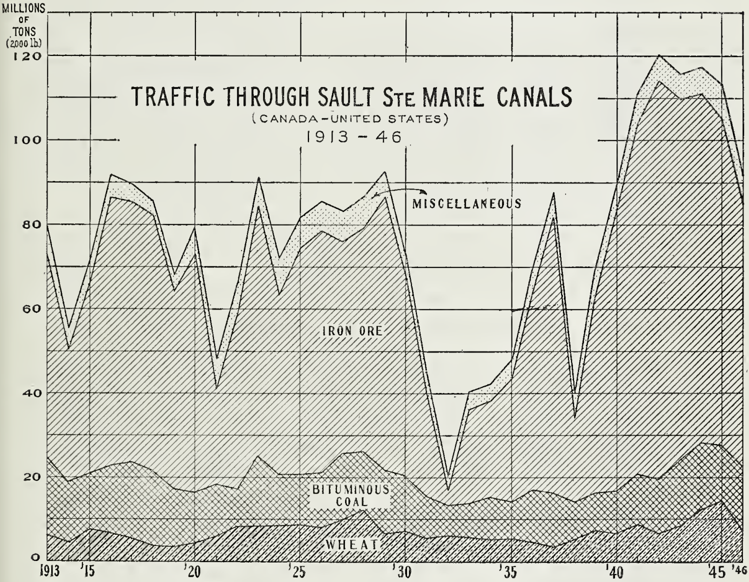
Canals Used	Up-Bound Freight	Down-Bound Freight	Total
	tons	tons	tons
Traffic Using Canadian Canals—			
St. Lawrence only	896,083	2,240,462	3,136,545
St. Lawrence and Welland Ship	649,396	1,637,332	2,286,728
St. Lawrence, Welland Ship and Sault Ste. Marie[1]	98,776	228,529	327,305
Welland Ship only	667,613	6,607,559	7,275,172
Welland Ship and Sault Ste. Marie[1]	195,164	1,971,649	2,166,813
Sault Ste. Marie only	425,491	947,616	1,373,107
Totals, Traffic Using Canadian Canals	**2,932,523**	**13,633,147**	**16,565,670**
Traffic Using United States Locks at Sault Ste. Marie Only	**18,202,107**	**72,819,158**	**91,021,265**
Totals, Canal Traffic	**21,134,630**	**86,452,305**	**107,586,935**

[1] Through both Canadian and United States locks at Sault Ste. Marie.

Traffic through the Sault Ste. Marie canals, Canadian and United States, has been approximately twice as heavy as the traffic through the Panama Canal during the latest ten years for which records are available, and in 1940 was almost three times as heavy. It has varied from a low of 20,484,000 tons in 1932, which was less than the Panama traffic, to a high of 120,200,814 tons in 1942. The dominant traffic, from a tonnage aspect, is iron ore. During the past 50 years this has fluctuated from 4,901,000 tons in 1892, an average of 50,000,000 tons in the 1920's, a low of 3,607,000 tons in 1932 and to a peak of 94,326,578 tons in 1942. Although wheat has ranged as low as only 7 p.c. of the iron-ore tonnage, its value has generally been greater than that of the iron-ore traffic, and has been the most valuable single commodity passed through the canals; in 1928 the value of wheat passed through the canals was 40 p.c. of the value of all traffic. Other grains have been about one-quarter to one-fifth of the wheat tonnage and a smaller ratio of the value.

Bituminous coal has generally been second in tonnage to iron ore and a large part of it is carried by the ore vessels when returning for a cargo of ore.

The tonnage of the three principal commodities and the tonnage of all freight passed through the canals for the years 1913 to 1946, inclusive, are shown by the following chart.



The Panama Canal.—The Panama Canal, which was opened to commercial traffic on Aug. 15, 1914, has been a waterway of great importance to British Columbian ports, from which vessels leave direct for British and European ports throughout the year. As an alternative route to that of the transcontinental railway lines, such a passage by water is of vital importance in the solution of the larger transportation problems of the continent, and while its influence is perhaps more potential than actual, such a check on transcontinental rail rates is a valuable one. During the First World War the great expectations based upon the opening of the Canal were not realized, owing to the scarcity of shipping. However, with the post-war decline in ocean freight rates, an increase in traffic between Canada's Pacific ports and Europe took place and, while the proportion carried in vessels of Canadian registry was comparatively small, the cargo tonnage nevertheless assumed considerable proportions. During the war years 1940-45, the volume of Canadian traffic through the Canal was greatly reduced.

25.—Traffic To and From the East and West Coasts of Canada via the Panama Canal, Years Ended June 30, 1929-46

Note.—Figures for the years 1921-28 are given at p. 707 of the 1938 Year Book.

Year	Originating on—		Destined for—		Year	Originating on—		Destined for—	
	West Coast	East Coast	West Coast	East Coast		West Coast	East Coast	West Coast	East Coast
	long tons	long tons	long tons	long tons		long tons	long tons	long tons	long tons
1929	2,650,646	231,128	266,433	539,767	1938	1,962,220	391,906	213,781	398,710
1930	1,968,996	185,776	267,282	556,562	1939	2,873,452	348,410	163,526	296,881
1931	2,307,257	137,756	271,621	492,532	1940	2,272,450	313,118	185,540	108,648
1932	2,383,211	89,443	167,855	529,317	1941	1,366,873	178,700	99,693	220,228
1933	2,896,162	121,875	134,511	328,038	1942	374,073	135,655	36,709	152,807
1934	2,201,180	196,204	189,277	498,706	1943	723,528	95,788	Nil	21,611
1935	2,490,203	248,658	176,698	547,974	1944[1]	363,220	17,283	30,044	Nil
1936	2,705,567	298,884	223,174	506,673	1945[1]	679,079	65,395	366,118	30,540
1937	2,780,243	379,783	240,221	589,011	1946	1,756,989	184,850	111,161	62,516

[1] Approximate—exact figures not available.

A table at p. 636 of the 1942 Year Book shows the total commercial traffic through the Panama Canal during the years 1929-40.

Subsection 3.—Harbour Traffic

The freight movement through a large port takes a number of different forms. The overseas movement, i.e., the freight loaded into or unloaded from sea-going vessels, frequently constitutes a surprisingly small part of the total. Usually the volume coming in and going out by coastwise vessels is larger. Then there is the 'in transit' movement in vessels that pass through the harbour without loading or unloading. Finally there is the movement from one point to another within the harbour, which in many ports amounts to a large volume. It is not possible to obtain statistics of the total freight handled in all the ports and harbours of Canada, as many of them are small, and without the staff necessary to obtain a detailed record of freight handled. The National Harbours Board reports annually the water-borne cargo loaded and unloaded at the eight ports under its control. Six of these are among the principal ports of Canada and the cargo handled in each is shown in Table 26. The figures include freight carried by coastwise and inland international, as well as by sea-going shipping; they include all cargo loaded or unloaded whether by facilities under the Board or at private docks and terminals in these ports. Cross-harbour movements, ballast (non-revenue), bunkers, ships' stores, mail and passengers' baggage are excluded.

26.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at Each of Six Principal Ports, 1945 and 1946

Port and Commodity	1945		1946	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
Montreal—				
Grain	1,159,060	2,962,086	634,954	1,796,314
Coal, bituminous	1,348,611	91	1,108,649	Nil
Gasoline	109,462	563,885	227,980	598,845
Flour, wheat	723	342,593	Nil	638,316
Petroleum oil, fuel	81,525	320,073	49,397	331,484
Petroleum oil, crude	95,714	Nil	249,163	34,075
Sugar, raw	11,399	"	178,442	Nil
Motor-vehicles and parts	64,539	313,160	24,941	140,922
Lumber (planks, boards and flooring) and square timber	3,166	84,824	4,295	150,799
Meats, canned, cured, prepared or preserved	113	74,845	514	144,219
Petroleum oil, refined, not otherwise specified	422	73,487	31,680	93,593
Manganese ore	14,224	14,224	41,227	79,843
Railway equipment, not otherwise specified	Nil	17,411	16	110,567
Paper, newsprint	"	52,058	Nil	99,813
Phosphate rock	"	Nil	65,641	30,204
Kerosene	19,952	24,805	83,872	8,806
Cement, common or portland	525	104,155	921	83,265
Pulpboard (except wallboard)	101	9,442	7	79,198
Gypsum, crude	54,660	4,319	75,940	Nil
Coal, anthracite	73,537	94	74,654	189
Molasses	1,249	3	50,132	13,498
Iron ore	Nil	Nil	38,779	22,470
Wood-pulp	1,017	60,386	1	52,202
Cheese	10	38,296	73	49,971
Totals, 24 Commodities	**3,040,009**	**5,060,237**	**2,941,278**	**4,558,533**
Grand Totals, All Commodities	**3,239,815**	**5,769,702**	**3,405,018**	**5,694,082**
Vancouver—				
Grain	Nil	912,610	2,410	1,718,394
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	944,958	90,111	917,930	111,509
Petroleum oil, crude	921,442	Nil	865,037	–
Petroleum oil, fuel	195,968	320,988	449,273	324,007
Lumber (planks, boards and flooring) and square timber	570,677	219,127	484,943	276,507
Sand and gravel	229,027	5,214	364,997	15,086
Paper, newsprint	207,833	20,959	224,006	29,114
Gasoline	94,345	129,713	102,428	119,189
Coal, bituminous	173,019	36,630	137,521	52,333
Flour, wheat	12	104,793	3	176,919
Wood-pulp	144,706	39,363	146,167	18,326
Fish (including shellfish), canned or preserved	39,859	46,550	35,686	66,751
Fertilizers and fertilizer materials	13,174	55,452	7,985	67,256
Cement, common or portland	51,275	4,467	68,597	5,953
Hog fuel	Nil	85,669	Nil	68,335
Rock and stone	1,285	4,044	3,045	60,581
Kerosene	13,788	2,771	35,408	15,614
Totals, 17 Commodities	**3,601,368**	**2,078,461**	**3,845,436**	**3,125,874**
Grand Totals, All Commodities	**4,117,322**	**2,875,200**	**4,379,263**	**3,865,318**
Halifax—				
Petroleum oil, crude	1,149,962	3,034	1,007,252	Nil
Petroleum oil, fuel	767,369	909,752	60,538	252,032
Coal, bituminous	488,807	80	264,401	406
Gasoline	25,426	141,589	94,322	134,327
Grain	7,218	447,107	4,916	216,535
Flour, wheat	169	274,078	23	180,697
Motor-vehicles and parts	33,736	100,073	22,064	81,944
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	3	40,981	32	95,524
Lumber (planks, boards and flooring) and square timber	97	96,408	30	88,813
Meats, canned, cured, prepared or preserved	62	165,605	206	58,305
Fish (including shellfish), fresh or frozen	32,463	6,849	50,585	4,430

26.—Principal Commodities in Water-Borne Cargo Landed from and Loaded to Vessels at Each of Six Principal Ports, 1945 and 1946—concluded

Port and Commodity	1945		1946	
	Inward	Outward	Inward	Outward
	tons	tons	tons	tons
Halifax—concluded				
Sugar, raw	139,109	Nil	53,317	Nil
Fish (including shellfish), dried, pickled, salted or smoked	23,964	38,342	13,828	39,357
Totals, 13 Commodities	**2,668,385**	**2,223,898**	**1,571,514**	**1,152,370**
Grand Totals, All Commodities	**2,800,877**	**2,982,167**	**1,738,442**	**1,647,270**
Saint John—				
Grain	Nil	861,466	Nil	476,848
Flour, wheat	1,124	338,189	30	300,556
Coal, bituminous	338,288	470	278,805	1,916
Lumber (planks, boards and flooring) and square timber	6,936	143,523	8,658	155,417
Sugar, raw	152,568	Nil	140,279	Nil
Motor-vehicles and parts	22,309	236,123	34,868	100,889
Paper, newsprint	Nil	104,192	Nil	106,186
Gasoline	47,297	9,071	78,360	12,546
Petroleum oil, fuel	95,788	1,303	80,941	4,121
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	2,251	29,884	3,969	78,175
Potatoes	1,064	38,148	1,208	52,245
Totals, 11 Commodities	**667,625**	**1,762,369**	**627,118**	**1,288,899**
Grand Totals, All Commodities	**1,049,342**	**2,801,009**	**973,777**	**1,868,911**
Three Rivers—				
Pulpwood	756,504	Nil	871,013	Nil
Coal, bituminous	340,953	49	417,444	“
Grain	452,766	667,520	72,571	184,615
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	Nil	57,174	Nil	144,353
Paper, newsprint	“	38,867	“	88,993
Lumber (planks, boards and flooring) and square timber	4,354	74,521	4,257	41,344
Gasoline	14,809	Nil	22,673	Nil
Sulphur	Nil	“	9,669	“
Petroleum oil, fuel	6,467	“	6,039	1,308
Sand and gravel	3,588	“	6,746	Nil
Totals, 10 Commodities	**1,579,441**	**838,131**	**1,410,412**	**460,613**
Grand Totals, All Commodities	**1,611,708**	**881,134**	**1,427,222**	**475,302**
Quebec—				
Pulpwood	365,667	126,316	451,986	100,011
Coal, bituminous	356,194	2,646	349,948	1,202
Gasoline	82,516	2,413	114,892	240
Logs, masts, piling, pitprops, poles, posts, spars and ties (railway)	1,274	64,831	493	105,538
Petroleum oil, fuel	143,310	772	95,297	457
Grain	14,008	409,028	19,313	58,099
Lumber (planks, boards and flooring) and square timber	12,558	46,671	9,030	47,717
Cement, common or portland	44,199	1,815	43,040	613
Totals, 8 Commodities	**1,019,726**	**654,492**	**1,083,999**	**313,877**
Grand Totals, All Commodities	**1,184,848**	**714,611**	**1,158,884**	**381,875**

PART V.—CIVIL AIR TRANSPORTATION*

NOTE.—The treatment of military activities and organization falls more properly under the subject of National Defence (see "Air Force, Royal Canadian" in the Index).

Section 1.—History and Administration

Subsection 1.—Historical Developments

About the turn of the century W. R. Turnbull, who may be termed the "father of aeronautical research in Canada", was experimenting with aerofoils and propellers at Rothesay, N.B., where, in 1902, he set up the first small wind tunnel in Canada. He discovered the laws of the centre of pressure movement on aerofoils, and made deductions from these laws which explained the longitudinal stability of aeroplanes. He also propounded the static laws of air propellers and in later years evolved and developed the controllable-pitch propeller.

At the time that Mr. Turnbull was beginning his work, Dr. Graham Bell was experimenting with kites and air-screws in laboratories at his summer home at Baddeck, Cape Breton Island. The "Aerial Experiment Association", formed in 1907, comprised five members: Dr. Bell, J. A. D. McCurdy and F. W. Baldwin, two young Canadian engineering graduates, Glen Curtiss, a motor-cycle engine builder from New York State, and Lieut. Selfridge, on leave from the United States Army. As a result of the work of these associates, the first flight in Canada was made at Baddeck on Dec. 7, 1907, in the *Cygnet*, a tetrahedral kite, which was towed by a steam tug. On Feb. 23, 1909, McCurdy's aeroplane, the *Silver Dart*, was taken out for tests on the ice at Baddeck. With its designer as pilot and under its own power, it flew for half a mile, rising thirty feet above the ice. This was the first aeroplane flight by a British subject. The *Silver Dart* was an advance on any aircraft previously flown, notable features being a three-wheel undercarriage, tapered wings, and the use of aileron controls.

Progress was rapid throughout the civilized world in the development and design of heavier-than-air flying craft from 1908 to the outbreak of the First World War and this progress was accelerated during the War by the intensity of competition for superiority in the air, and by the wide field for experiment which the war activities provided. Officially, Canada took little part in these developments. However, many young Canadians entered the flying service of Britain and, to facilitate their recruitment and preparation, training units were established in Canada. To provide the aircraft for training purposes, Canadian Aeroplanes, Limited, was organized by the Imperial Munitions Board and, by the end of the War no less than 2,900 'planes had been built by this industry. In the latter part of the War, owing to the extension of submarine raiding to the Atlantic Coast of America, a Royal Canadian Naval Air Service was organized to patrol the coasts of the Maritime Provinces and the Gulf of St. Lawrence. Bases were established at Halifax and Sydney, N.S., and patrols inaugurated on Aug. 25, 1918.

At the end of the War, thousands of young men with training and experience in the British flying services returned to Canada, full of enthusiasm for aviation, and seeking an opportunity to apply their new knowledge to peacetime developments. At the same time, governments were disposing of their surplus stocks of 'planes at bargain prices. Action was necessary to supervise and control aviation in Canada. The Air Board was appointed in June, 1919, with authority for the full regulation of civil aeronautics. Branches were organized to deal with licensing of aircraft and personnel, to conduct operations for other Government services, and to provide technical services.

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* Descriptive and administrative information has been prepared from material supplied under the direction of A. D. McLean, O.B.E., Controller of Civil Aviation, Department of Transport, and W. S. Thompson, C.B.E., Director of Public Relations, Canadian National Railways, Department of Transport: statistics have been compiled by G. S. Wrong, Chief of the Transportation and Public Utilities Branch of the Dominion Bureau of Statistics.

The immediate post-war circumstances of a large number of trained pilots and many surplus aircraft resulted in great activity in flying. However, much of this was in the form of exhibition flying, joy-riding and flying instruction. Patronage of these activities soon waned as the novelty of flying wore off among the general public. However, the foundations for real progress were laid by a few more far-sighted men who sought to apply the facilities of aircraft to practical purposes in forest reconnaissance, surveying, and transportation in inaccessible areas of the country. In the summer of 1919 successful flights were made for forest protection and survey work at Lac à la Tortue in Quebec. In the summers of 1920 and 1921 bases were established by the Air Board, with provincial co-operation, at various points across Canada from which forest patrols and survey work were carried on. In addition, some large corporations established their own air services for forest patrol, surveys and transportation. The discovery of crude oil at Fort Norman on the Mackenzie River in the Northwest Territories in the autumn of 1921 led to the first large-scale attempt by commercial interests to establish air transportation in the far north. As a result of the development of mining activity at Rouyn in northwestern Quebec, the first regular freight and passenger air-transport service was inaugurated in 1924.

From these beginnings the expansion has been rapid. The speed and ease of air transport has played a very important part in the development of mining activity throughout many areas of the Canadian Shield during recent years. Aircraft have been regularly used all across Canada for forest sketching, patrol and fire suppression, while very large areas have been mapped each year by aerial photography. The basic reasons for this progress of flying in the north country are simple. The only alternative means of transportation in many cases—the canoe in summer and the dog team in winter—are arduous, tedious, very costly, and slow for long distances. Furthermore, the lakes which dot the country everywhere provided, from the first, readily available landing places for aircraft equipped with floats in summer and with skis in winter. The flying could all be done in daylight hours and trips could generally be postponed if weather conditions were unfavourable. As a result, commercial flying throughout the north country was able to perform a very real economic service and to show substantial progress without governmental subsidies of any kind. Numerous governmental functions are being carried out with increased efficiency and economy through the aid of flying.

The situation was wholly different in the older settled parts of Canada. Here other forms of dependable and efficient transportation were already in existence and in some phases over-developed. The only advantage flying could offer was a saving of time, and to effect this an elaborate system of ground facilities was necessary. On account of the expense entailed, the development of inter-city air transportation was left in abeyance at first until progress elsewhere would give a clearer indication of its success and value. However, the success of inter-city air services in Europe and the steady growth of the United States airway system led to a reconsideration of Canada's position in 1927. As a step in establishing a chain of airports across Canada and also to provide for the training of personnel, the flying-club movement was started with the offer of government grants and gifts of aircraft. Twenty-three flying clubs were established in the principal cities of Canada in 1928 and 1929.

Aerodromes established by municipalities or by these flying clubs formed the nucleus for the Trans-Canada Airway, the Federal Government having to provide intermediate landing fields, especially through the Rocky Mountains and across northern Ontario, and the weather-reporting, lighting, and radio services.

At the beginning of 1923, in the unification of the defence forces under the Department of National Defence, the Air Board, established in 1919, was abolished and the administration of aviation was placed under the Department of National Defence. At this period when both military and civil flying services were small and in the early stages of their development, the advantages of combining their administration in one department were manifest. However, the two functions inevitably developed along different lines, these differences applying both to types of aircraft and to training of personnel. With the growth of both military and civil flying, their administration in one Department became less convenient and stability in the administration of aviation in the Dominion was finally reached in the autumn of 1936 by the complete separation of the military and civil functions, the latter being transferred to the new Department of Transport. Civil aviation has now become so important a part of the transportation facilities of Canada that it can best be administered by the Department that deals with railway and shipping services, to which aviation is complementary.

Trans-Canada Airway.—An article describing this Airway appears at pp. 703-705 of the 1940 Year Book.

Transatlantic Air Service.—The work done to establish an air service between Canada, the United States and the British Isles via Newfoundland up to the outbreak of war is described at pp. 705-707 of the 1940 Year Book.

Pre-War Civil Aviation and the Defence Program.—An article describing the developments of importance in civil aviation prior to the outbreak of war in 1939, and also the contribution that civil aviation made to the air defence program, is given at pp. 608-612 of the 1941 Year Book. An article describing the development and progress of the British Commonwealth Air Training Plan is given at pp. 1090-1099 of the 1946 Year Book.

Administration.—The 1942 Year Book, at pp. 638-639, outlines the administrative arrangements for the control of civil aviation. Present control under the Air Transport Board is given at pp. 657-658.

Subsection 2.—Recent Developments

The transition of civil aviation from war to peace was completed in 1946 when then existing wartime controls of aviation were removed; airports and aerodromes, constructed for war purposes, were acquired for civilian use and considerable construction work was undertaken to convert some of these to meet the requirements of heavy transport 'planes; airway controls were extended; additional aids to air navigation were provided; and construction was commenced on new airports to meet the demand for expansion of Canada's airway system which had been temporarily halted by the War.

Disposal of Airports.—Most of the airports and aerodromes built for or adapted to war use by the British Commonwealth Air Training Plan have been acquired by the Department of Transport since the cessation of hostilities. Post-war civilian use was envisioned for many of these aerodromes when they were built; those declared surplus by the Royal Canadian Air Force have been transferred, through the medium of the Crown Assets Allocation Committee, to the Department of Transport and have, in most cases, been retained for civilian use. Most airports leased from municipalities are being returned to them; many of the newly constructed fields also have been leased to interested municipalities or other responsible bodies.

Many of the R.C.A.F. buildings on the airports taken over have been retained for departmental or municipal use or have been made available at nominal yearly charges to reorganized local flying clubs. Buildings not required for these purposes or as storage warehouses for the War Assets Corporation have been turned over to the Crown Assets Allocation Committee to alleviate housing and other building shortages.

New Development.—With the acquisition by the Department of Transport, of extended airway and airport facilities constructed by the United States Army Air Force in northern Canada for Hemisphere defence purposes, the Department has undertaken the further development of the Edmonton-Norman Wells route via Fort McMurray. The Northwest Staging Route (for details, see article on Canada's Northern Airfields, pp. 705-712 of the 1945 Year Book) from Edmonton to Whitehorse, originally constructed by the Department of Transport and extended during the War, remains for the present under the operational control of the R.C.A.F. with the exception of the Radio Range and Meteorological Services. No decision has been reached as to the use or disposal of airport facilities on the "Crimson Route" or Northeast Staging Route extending from The Pas to Churchill, Man., Southampton Island, N.W.T., and Goose Bay, Labrador.

Detailed surveys were undertaken during the year for proposed airport sites in the Provinces of Alberta, Ontario, Quebec and New Brunswick, at Banff, Red Lake, Atikokan, Gore Bay, Wiarton, Caribou Island, Chibougamau, Matane and Fredericton. Also, by arrangements with the Department of Mines and Resources, construction of a second landing strip was started on the airport at Yellowknife, N.W.T., to enable larger-type aircraft to carry supplies into this important mining centre at all seasons of the year.

Revival of Commercial Flying.—Commercial flying in Canada is still awaiting the appearance of the latest types of civil aircraft. In the meanwhile a number of converted military aircraft have been brought into commercial-flying service. Construction of commercial aircraft in Canada has been greatly hampered by lack of materials and component parts but it is expected that early in 1947 commercial air-carriers in Canada will be in a position to acquire much needed new 'planes and other equipment necessary to their expansion. Many of Canada's war-trained air and ground crews have passed the necessary tests for Certificates of Competency in civilian flying and as air engineers. It is anticipated that as new equipment is made available there will be considerable expansion in commercial flying in Canada.

Private Flying.—Indications are that, as equipment is made available, there will be a spectacular come-back in private flying which, so far, has been held back in spite of military surpluses by lack of equipment and lack of hangar and other aerodrome facilities.

Revival of the Club Movement.—There has been marked activity among Royal Canadian Flying Clubs and many airmen returning from overseas have been actively associated in the revival of this movement. The Royal Canadian Flying Clubs were, in practically all cases, actively engaged during the war years in primary training work for the R.C.A.F.

The Department of Transport Air Services has done much to encourage the revival of Flying Clubs throughout the Dominion and, where possible, has granted special privileges on departmental aerodromes. In co-operation with the R.C.A.F. wartime buildings have been retained at airports and made available to the Clubs at nominal yearly leases.

Canadian Scheduled Air Transport Services

Trans-Canada Air Lines in 1946.—Continued expansion and improvement in service featured the operations of Trans-Canada Air Lines in 1946. New routes were opened, frequencies on some existing routes were intensified and passenger accommodation was materially increased with the addition of new and larger aircraft to the T.C.A. fleet. The Air Lines' growth had the effect of a further relative contraction in Canada's vast distances while enhancing international relations.

A great increase in the number of revenue 'plane miles flown by the Company resulted. The figure of 14,162,377 miles represented an increase of 3,656,302 'plane miles over the previous year. A good part of this additional mileage was flown over the 1,212 miles of new routes which T.C.A. inaugurated during the year. The new routes brought the total mileage up to 6,511 as compared with 5,299 at the end of 1945. Passenger traffic and express showed sharp gains but air-mail figures declined considerably. Sixty-seven per cent more passengers were carried than in 1945, the total of 305,442 being an increase of 122,321, while air express reached 1,043,713 lb., 93,390 lb. above that of 1945. Air-mail volume at 2,325,977 lb. showed a decrease of 1,103,255 lb.

Under the provisions of the 1945 contract, Trans-Canada took delivery during the year of 24 21-passenger DC-3 aircraft, bringing the DC-3 fleet up to 27 at the end of 1946. These 'planes, as received, were put in operation to replace the smaller Lockheed aircraft and are now flying most of T.C.A.'s Canadian and trans-border routes, the Lockheeds being confined mostly to Western Canada on the Lethbridge-Vancouver run. Disposal of part of the Lockheed fleet had begun by the end of summer.

In the spring, an extra daily flight was added to the Toronto-New York service, now four flights daily in each direction. In July, a new service between Toronto and Chicago was inaugurated and three flights daily are made between these points. A month later another important United States city was added to the Air Lines' network when Toronto was joined to Cleveland, Ohio, in a daily service. Two daily flights are operated on this route, via London, Ont. The next international link was forged in September when a daily flight service was introduced between Port Arthur-Fort William, Ont., and Duluth, Minn., and the rapid expansion extended into the following month. In November, operations were commenced on the Victoria-Seattle route while, simultaneously, the existing service between Vancouver and Victoria was increased to eight flights daily. A fourth daily transcontinental service between Montreal and Vancouver went into operation on Apr. 1, 1947.

Canadian Government Transatlantic Air Service.—During 1945, the Canadian Government Transatlantic Air Service, operated by Trans-Canada Air Lines, made its 1,000th crossing of the Atlantic. The service was greatly accelerated, with flight frequencies increased from three a week to one every day, and every scheduled flight was completed. Flights were extended to London, England. The new four-engine 40-passenger aircraft, the *North Star*, which will be used by T.C.A. in trans-ocean and transcontinental services, was test-flown in July, 1946, made a flight across Canada in September and its first transatlantic flight in April, 1947. This airliner is largely the product of Canadian ideas and manufacture.

Canadian Pacific Air Lines.—During the year 1946, Canadian Pacific Air Lines experienced a general improvement in traffic. A considerable portion of this improvement can be attributed to the increase in activity in the mining areas of the country which first evidenced itself during the latter part of 1946. C.P.A.L. has continued its policy of greater standardization of its fleet by acquiring during the year additional units of new and larger aircraft types, including 10 Douglas C-47's, 9 Norsemen and 4 Cansos.

In 1946, the component companies of the C.P.A.L. flew 6,813,907 miles in revenue service as compared with 5,373,403 miles in 1945; carried 175,461 revenue passengers compared with 125,110; 16,514,741 lb. of freight as against 9,419,556 lb.; and 1,722,733 lb. of mail as compared with 1,253,537 lb. in 1945.

Independent Air Lines.—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are only four other domestic air lines licensed to operate scheduled services in Canada. These are:—

(1) Maritime Central Airways of Charlottetown, P.E.I.
(2) Northern Airways Limited, Carcross, Y.T.
(3) Leavens Brothers Air Services Ltd., Toronto, Ont.
(4) M and C Aviation Co., Ltd., Prince Albert, Sask.

Most of the independent air lines are operating non-scheduled services which, with few exceptions, are charter services from designated bases. It is in this field that the greatest development has taken place in the immediate post-war period. These non-scheduled air services not only provide effective means of access to sections of the Dominion that are inaccessible by other means of transportation, but also act as feeders to the scheduled air lines.

It is in the charter-service field of commercial aviation that ex-service men, particularly Air Force personnel, have shown the greatest interest, inasmuch as they can commence operations in a modest way and the capital required is not exorbitant.

At the close of 1946, operating certificates issued by the Air Services Branch of the Department of Transport included 70 non-scheduled commercial charter services from designated bases and three such services operating between qualified points.

Foreign Scheduled Services.—Operating certificates issued to foreign scheduled services flying into Canada number five and consist of the following:—

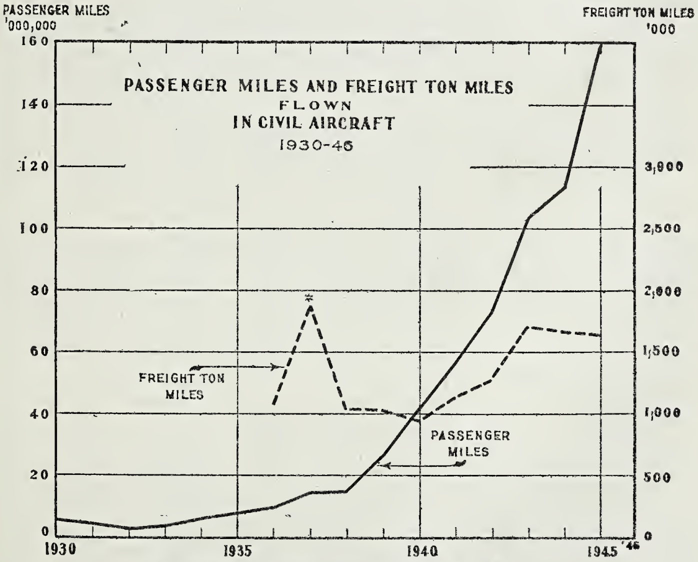
(1) Pan-American Airways, Inc., operating between Seattle, Wash., and Fairbanks, Alaska, with refuelling stop at Port Hardy, B.C., and points of call at Juneau, Alaska, and Whitehorse, Y.T.
(2) United Air Lines, Inc., operating between Vancouver, B.C., and Bellingham, Wash.
(3) American Airlines Inc., operating between Toronto, Ont., and Buffalo, N.Y., and also the Canadian portion of the route between Buffalo, N.Y., to Windsor, Ont., and Detroit, Mich.
(4) Colonial Airlines, Inc., operating between Montreal, Que., and Burlington, Vt.; between Ottawa, Ont., and Burlington via Montreal; between Montreal and Syracuse, N.Y.; and between Ottawa and Syracuse.
(5) British Overseas Airways Corporation with Canadian Terminal at Montreal Airport (Dorval).

Section 2.—Airports and Aircraft

Subsection 1.—Summary Statistics of Civil Aviation

From commercial operators of aircraft, aeroplane clubs, etc., the Bureau of Statistics collects and compiles civil aviation statistics, with the exception of data on licences and accidents, which are reported by the Civil Aviation Division of the Department of Transport.

The commercial companies are divided into two classes, those engaged principally in international flying between Canada and the United States and those engaged exclusively or almost exclusively in flying between Canadian stations. Regular flying on the Montreal to Vancouver portion of the Trans-Canada Airway began toward the end of 1938. The statistics for 1939 were the first to include extensive operations of the Trans-Canada Air Lines. The companies operating in the north country carry passengers, freight and supplies into and out of the mines and account for the large volume of freight carried by air in Canada. Because of this feature of civil aviation in Canada, it is difficult to make comparisons with other countries where the traffic is principally inter-urban passenger traffic between well-established airports.



* Over $ 600,000 worth of mine equipment sent to Yellowknife, N.W.T. in 1937.

1.—Summary Statistics of Civil Aviation, 1940-45

NOTE.—Figures for 1921-23 will be found at p. 616 of the 1924 edition of the Year Book, for 1924-29 at p. 661 of the 1930 edition, for 1930-34 at p. 698 of the 1936 edition and for 1935-39 at p. 640 of the 1942 Year Book. Statistics for the Trans-Canada Airway were included for the first time in 1939, and figures after 1938 are not comparable with previous years (see text on p. 719).

Item		1940	1941	1942	1943	1944	1945
Aircraft Miles Flown—							
Revenue	No.	10,341,329	11,810,668	12,781,867	14,584,115	15,568,559	18,618,970
Non-revenue	"	671,258	697,722	547,276	709,434	620,803	1,468,462
Totals	"	11,012,587	12,508,390	13,329,143	15,293,549	16,189,362	20,087,432
Passengers Carried—							
Revenue[1]	No.	135,779	181,219	198,205	282,886	371,397	490,809
Non-revenue[2]	"	11,406 [3]	15,048 [3]	13,345 [3]	12,375 [3]	11,695 [3]	17,887
Totals	"	149,025	208,059	229,047	314,642	403,938	525,407
Passenger Miles—							
Revenue	No.	38,438,439	53,891,516	70,554,377	100,530,892	111,127,010	153,504,833
Non-revenue[2]	"	2,727,363	2,832,198	2,652,224	2,859,572	2,759,319	5,658,612
Totals	"	41,165,802	56,723,714	73,206,601	103,390,464	113,886,329	159,163,445
Freight Carried—							
Revenue[4]	lb.	12,978,836	14,719,700	11,055,142	11,546,777	10,522,932	12,615,119
Non-revenue	"	1,446,020[3]	1,733,361[3]	1,243,938[3]	1,515,288[3]	1,247,743[3]	1,447,642
Totals	"	14,436,571	16,559,611	12,651,939	13,853,563	12,430,645	14,462,400
Freight Ton Miles—							
Revenue	No.	784,922	956,482	1,125,912	1,500,179	1,406,679	1,337,145
Non-revenue	"	161,273	169,055	148,038	218,141	261,507	313,072
Totals	"	946,195	1,125,537	1,273,950	1,718,320	1,668,186	1,650,217
Mail Carried[5]	lb.	2,710,995	3,411,971	5,470,209	7,586,809	7,296,265	6,418,944
Ton Miles	No.	610,053	894,578	1,484,314	2,103,867	2,072,129	2,096,289
Hours Flown by Aircraft—							
Transportation revenue	No.	80,796	88,536	92,314	101,169	105,815	125,570
Transportation non-revenue	"	6,871	7,049	5,227	6,438	5,308	12,391
Patrols, surveys, etc.	"	64,161	37,238	20,335	9,055	12,299	14,609
Totals	"	151,828	132,823	117,876	116,662	122,422	152,570
Hours flown by crew	No.	226,534	241,154	235,573	257,815	279,943	369,148
Hours flown by passengers	"	300,904	379,777	480,534	562,337	712,373	1,048,344
Horse power hours flown by aircraft	'000	105,451	113,797	127,246	165,487	183,556	216,288
Gasoline consumption[6]	gal.	3,959,798	4,389,648	4,653,555	5,661,301	6,169,355	7,855,067
Lubricating oil consumption[6]	"	92,719	104,758	104,441	117,050	100,240	121,963
Licensed civil airports (all types)	No.	[7]	180	177	175	136	146
Licensed Civil Aircraft (all types)—							
Gross weight—							
Up to 2,000 lb	No.	267	227	132	52	71	169
2,001- 4,000 lb	"	85	86	64	48	44	47
4,001-10,000 lb	"	103	96	89	73	87	111
Over 10,000 lb	"	18	31	33	41	45	54
Totals, Aircraft	"	473	440	318	214	247	381
Ownership, Commercial—							
Up to 2,000 lb	No.	109	109	75	33	7	117
2,001- 4,000 lb	"	61	58	46	35	18	34
4,001-10,000 lb	"	80	71	61	54	53	77
Over 10,000 lb	"	18	30	32	38	45	50

For footnotes, see end of table, p. 721.

1.—Summary Statistics of Civil Aviation, 1940-45—concluded

Item	1940	1941	1942	1943	1944	1945
Ownership, Other—						
Up to 2,000 lb..............No.	158	118	57	19	64	52
2,001- 4,000 lb............. "	24	28	18	13	26	13
4,001-10,000 lb............. "	23	25	28	19	34	34
Over 10,000 lb.............. "	Nil	1	1	3	Nil	4
Licensed Civil Air Personnel—						
Commercial pilots..........No.	128	77	108	67	68	96
Limited commercial pilots.. "	249	322	324	218	181	457
Transport pilots............ "	152	158	188	235	318	485
Private pilots.............. "	825	760	656	242	255	389
Air engineers............... "	822	832	944	983	850	962

[1] Exclusive of passengers carried between foreign stations. [2] Includes employees other than crews. [3] Revised since the publication of the 1946 Year Book. [4] Exclusive of freight carried between foreign stations. [5] Compiled on a different basis from those of the Post Office shown at p. 745. [6] For Canadian carriers only. [7] Not available.

Subsection 2.—Ground Facilities

Early ground facilities for civil aviation in Canada consisted chiefly of municipal or flying-club airports adjacent to the larger urban centres, and of numerous terminals from which commercial flying services operated, mainly into the northern mining regions. A large air terminal was built at St. Hubert, Que., seven miles south of Montreal, with immigration, customs and postal facilities available. These earlier airports formed the nucleus which, with many additions and improvements, became the chain of aerodromes constituting the Trans-Canada Air Lines. The development of this airway and the use and expansion of the ground facilities for military purposes during the Second World War affected the status and facilities of many former municipal airports.

2.—Civil Airports by Type, as at Dec. 31, 1945

Type	Landing Surfaces			
	Land Only	Water Only	Land and Water	Total
	No.	No.	No.	No.
Public	13	14	Nil	27
Dominion Government	22	4	"	26
Intermediate	49	Nil	"	49
Provincial	Nil	7	"	7
Private	7	17	"	24
Municipal airports	8	3	2	13
Totals	**99**	**45**	**2**	**146**

Subsection 3.—Aircraft

The construction in Canada of aircraft and equipment is essential to the development of flying. Before the War several manufacturers were producing original types especially suited to operation in Canada, and a number of manufacturers from England and the United States formed branches in Canada for the assembly and servicing of their products. There were also a number of plants for the manufacture of landing gear, especially skis and pontoons, designed to meet the particular requirements of Canadian conditions. Plants equipped to manufacture civil aircraft and parts were changed over during the War to the production of military types and the industry expanded by many additional plants and firms. The principal statistics of the aircraft industry are shown for the latest available year in the Manufactures Chapter (Table 9, p. 576).

Section 3.—Finance and Employees

Subsection 1.—Dominion and Other Expenditures and Revenues

The status of civil aviation in Canada has changed considerably in recent years as regards both civil and military requirements. Until the institution of the Trans-Canada Air Lines, the development of civil aviation was limited to the provision of private, commercial and administrative services for the more remote sections of Canada, chiefly in the northern mining, forestry and trapping regions. Recently, however, the Dominion Government has improved existing airports and constructed others for civil and for military purposes. In addition to direct expenditures, the Department of Transport has given assistance to municipalities for the construction and development of airports amounting to $3,707,311.

3.—Investment, Operation and Maintenance Expenditures and Revenues of the Department of Transport in Connection with Civil Aviation, Years Ended Mar. 31, 1944-46.

Note.—Compiled from Department of Transport Records. The Departmental Investment Section has been revised from previous years to include Canadian Government Transatlantic Air Service; the Operation and Maintenance Expenditures Section has been revised to include expenditures from war appropriations; and the Revenues Section has been revised to include revenue relating to War Appropriations under the appropriate classification of Revenue instead of showing the total in one amount as heretofore.

Item	1944	1945	1946	Total as at Mar. 31, 1946
	$	$	$	$
Departmental Investment				
Airways and Airports—				
Civil Aviation—				
Ordinary appropriations	Nil	Nil	*1,334,324*	849,053
Capital appropriations	716,719	803,240	750,323	9,853,756
War appropriations	1,506,372	6,682,241	2,899,518	12,020,387
Air Ministry of United Kingdom	Nil	Nil	4,913,090	4,913,090[1]
Radio Aviation—				
Ordinary appropriations	Nil	Nil	2,847	336,180
Capital appropriations	271,446	706,495	494,430	4,761,238
War appropriations	107,599	141,253	173,476	627,927
Meteorological Aviation—				
Ordinary appropriations	Nil	Nil	Nil	11,066
War appropriations	157,857	43,392	150,469	412,202
Totals, Airways and Airports	**2,759,993**	**8,376,621**	**8,049,829**	**33,784,899**[2]
Canadian Government Transatlantic Air Service	**200,000**	**362,162**	**2,548,104**	**3,110,266**
Totals, Departmental Investment	**2,959,993**	**8,738,783**	**10,597,933**	**36,895,165**

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[1] Property constructed at Montreal (Dorval), Que., to Feb. 15, 1946, and North Bay, Ont., to Dec. 31, 1945, acquired by Federal Government under agreements of June 24, 1943, and June 5, 1944, respectively.

[2] The above does not include expenditures for Construction and Development of Airways and Airports from Unemployment Relief Appropriations to the extent of $3,811,161 made by Department of National Defence prior to establishment of Department of Transport in 1936, nor Grants to Municipalities to assist in development of Airways and Airports to the extent of $3,707,311, nor expenditures made by Department of National Defence—Air, or other Government Departments. There was also a payment of $35,260,822 covering acquisition of United States Air (War) and other war installations in Canada and Labrador.

3.—Investment, Operation and Maintenance Expenditures and Revenues of the Department of Transport in Connection with Civil Aviation, Years Ended Mar. 31, 1944-46—concluded.

Item	1944	1945	1946
	$	$	$
Operation and Maintenance Expenditures and Revenues			
Expenditures—			
Air services administration	9,964	8,876	5,545
Control of civil aviation (including administration of Aeronautics Act and Regulations)	200,334	229,137	252,208
Grants to aeroplane clubs	6,700	5,050	33,950
Assistance to M & C Aviation Co. Ltd.	Nil	Nil	9,729
Airways and Airports Operation and Maintenance—			
Main facilities	692,168	850,896	1,241,513
Radio aviation	721,719	800,220	918,211
Meteorological aviation	436,984	462,895	477,967
War appropriations expenditure	2,703,780	3,912,908	5,033,675
Government Employees Compensation Act	8,293	8,691	7,668
Totals, Expenditures	**4,779,942**	**6,278,673**	**7,980,466**
Revenues and Receipts—			
Private air pilots' certificates	30	2	452
Aircraft registration fees	230	345	1,505
Airport licences	10	20	120
Airworthiness certificates	370	110	1,790
Scheduled air transport service licences	Nil	15	Nil
Fines—Aeronautics Act and Regulations	106	160	“
Airport landing fees	81,289	86,386	115,593
Passenger tolls	356	619	354
Rental at airports	24,927	22,259	38,279
Outside and hangar space rental	5,645	7,241	19,106
Rental of equipment	2,176	3,885	8,657
Rental—employees quarters	30,231	49,057	52,750
Miscellaneous rental	736	539	1,690
Power service	Nil	Nil	4,266
Airport radio service to aircraft	14,250	22,884	26,374
Radio message tolls	18,569	17,145	21,195
Mess receipts	Nil	25,759	29,402
Miscellaneous revenue	9,421	5,867	7,165
Refund of previous years' expenditure	10,225	24,454	31,673
Totals, Revenues and Receipts	**198,571**	**266,747**	**360,371**

The capital expenditures made by commercial air carriers for property as reported for the end of 1945 are shown in Table 4. No statistics are available regarding expenditures on flying operations by the Federal and Provincial Governments or by private individuals.

4.—Cost of Property, Revenues and Expenditures for Licensed and Unlicensed Commercial Air Carriers in Canada, 1945

Item	Commercial Canadian Carriers		
	Licensed	Unlicensed	Total
	$	$	$
Cost of Property—			
Aircraft	3,115,103	199,441	3,314,544
Aircraft engines	1,213,199	24,433	1,237,632
Buildings and improvements	1,600,811	59,373	1,660,184
Miscellaneous	1,380,134	51,249	1,431,383
Totals, Cost of Property	**7,309,247**	**334,496**	**7,643,743**
Revenues and Expenditures—			
Revenues	16,436,849	898,305	17,335,154
Expenditures	16,577,440	943,249	17,520,689

Subsection 2.—Employees and Salaries and Wages

The numbers of civil air personnel licensed in recent years is shown in Table 1, p. 720. However, those figures include pilots and engineers in the employ of the Federal Government and of private individuals as well as those not employed at all in the ordinary sense.

5.—Employees and Salaries and Wages in Civil Aviation in Canada, 1945

Class of Employee	Scheduled		Non-Scheduled		Totals	
	No.	$	No.	$	No.	$
General officers	116	635,002	18	59,812	134	694,814
Clerks	604	912,370	25	31,691	629	944,061
Pilots	158	1,015,753	55	141,884	213	1,157,637
Co-pilots	114	401,976	-	-	114	401,976
Despatchers	50	113,051	1	300	51	113,351
Communication operators	316	519,769	-	-	316	519,769
Stewards or other attendants	98	166,406	-	-	98	166,406
Air engineers	176	395,397	46	98,365	222	493,762
Mechanics	1,456	2,844,439	82	120,421	1,538	2,964,860
Airport employees	643	972,139	6	6,395	649	978,534
Stores employees	115	175,491	9	13,921	124	189,412
Other employees	288	544,369	54	83,420	342	627,789
Totals	**4,134**	**8,696,162**	**296**	**556,209**	**4,430**[1]	**9,252,371**[1]

[1] Exclusive of 67 employees paid $185,021—Canadian domiciled employees of international carriers.

Section 4.—Aerial Traffic

Table 1, p. 720, shows large increases in passenger traffic during the years from 1940 to 1945. The amount of freight carried by aircraft grew rapidly, increasing from 2,372,467 lb. in 1931 to a record of 24,317,610 lb. in 1937; it decreased considerably during the war years, amounting to 14,462,400 lb. in 1945, due mainly to the decline in the gold-mining industry and the restrictions in the use of aircraft for trapping and other operations. In the years before the War, a large part of the air freight was mine machinery and supplies to gold-mining companies. Many of these mines, located in the northern parts of Quebec, Ontario and the Western Provinces and in the Northwest Territories, were accessible only by canoe in the summer and dog team in the winter or by aircraft, and aircraft transportation was the cheapest and most effective method of transportation. Further information regarding air-mail services appears in Part VIII of this Chapter, p. 745.

Statistics for international carriers include only traffic over Canadian territory for both Canadian and foreign operators. A small traffic across Canadian territory and between foreign stations is also included. Statistics for Canadian carriers operating international routes are included both as "International" and "Canadian" but duplications are excluded in the totals.

6.—Operations of Civil Aircraft in Canada, 1945

Note.—The basis of presentation of these statistics differs from that of previous years.

Item	Canadian Carriers			Foreign International	Total
	Scheduled	Non-scheduled	Non-commercial		
Aircraft Miles Flown—					
Revenue transportation............No.	16,331,297	938,341	Nil	1,349,332	18,618,970
Non-revenue transportation .... “	1,274,432	38,010	148,990	7,030	1,468,462
Totals.................. “	17,605,729	976,351	148,990	1,356,362	20,087,432
Passengers Carried—					
Revenue...........................No.	330,744	18,716	Nil	141,349	490,809
Between foreign stations........... “	Nil	Nil	“	16,711	16,711
Non-revenue...................... “	10,306	655	3,673	3,253	17,887
Totals.................. “	341,050	19,371	3,673	161,313	525,407
Passenger Miles—					
Revenue...........................No.	130,912,167	866,789	Nil	21,725,877	153,504,833
Non-revenue...................... “	4,316,004	73,770	199,916	1,068,922	5,658,612
Totals.................. “	135,228,171	940,559	199,916	22,794,799	159,163,445
Freight Carried—					
Revenue.............................lb.	10,800,763	1,164,581	Nil	649,775	12,615,119
Between foreign stations........... “	Nil	Nil	“	399,639	399,639
Non-revenue...................... “	840,199	15,695	429,765	161,983	1,447,642
Totals.................. “	11,640,962	1,180,236	429,765	1,211,397	14,462,400
Freight Ton Miles—					
Revenue...........................No.	1,198,637	36,936	Nil	101,572	1,337,145
Non-revenue...................... “	243,728	622	11,982	56,740	313,072
Totals.................. “	1,442,365	37,558	11,982	158,312	1,650,217
Mail carried..........................lb.	5,114,453	81,149	Nil	1,223,342	6,418,944
Mail ton miles........................No.	1,789,282	1,968	“	305,039	2,096,289
Hours Flown by Aircraft—					
Transportation revenue............No.	110,211	6,313	Nil	9,045	125,569
Transportation non-revenue........ “	10,512	343	1,478	58	12,391
Patrols, surveys, etc............... “	375	7,326	6,824	85	14,610
Totals.................. “	121,098	13,982	8,302	9,188	152,570
Hours flown by crew................No.	293,649	10,344	8,386	56,769	369,148
Hours flown by passengers........... “	860,482	11,794	1,730	173,979	1,047,985
Horse power hours flown.............'000	153,780	Nil	30,004	32,504	216,288
Gasoline consumption.................gal.	6,869,665	163,622	163,669	658,111	7,855,067
Lubricating oil consumption......... “	112,771	4,253	4,063	876	121,963

PART VI.—WIRE COMMUNICATIONS*

Section 1.—Telegraphs

The early history of telegraphic communication in Canada is given at p. 778 of the 1934-35 Year Book.

Dominion Government Telegraph Service.—This service is operated by the Government Telegraph and Telephone Branch of the Department of Public Works. Its general object is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest.

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* Revised by G. S. Wrong, Director, Transportation and Public Utilities Division, Dominion Bureau of Statistics. This Division issues annual reports dealing with telegraph and telephone statistics.

In addition to the following facilities the Branch is responsible for the control of installations of Government telephones both in Ottawa and in all other parts of Canada: telegraph and telephone services to scattered settlements along the coast of Cape Breton Island; cable services to Campobello, Grand Manan and other islands in the Bay of Fundy, to Prince Edward Island and a number of small islands in the Gulf of St. Lawrence; telegraph services along the north shore of the St. Lawrence River from Quebec to the Straits of Belle Isle and Labrador; cable connections with Pelee and Manitoulin Islands in Ontario; some lines to northern outlying districts in Saskatchewan; telegraph lines from Edmonton to the Athabaska and Peace River country in Alberta; telegraph and telephone communications around the coast of Vancouver Island and adjacent islands; service to fishing, lumber and mining centres in the interior; an overland telegraph and telephone line serving communities from Ashcroft, B.C., to the whole of the Canadian north country in British Columbia and Yukon.

Telegraph Systems.—The Canadian telegraph systems are composed of lines owned by the Dominion Government and by chartered railway and telegraph companies. The Canadian facilities, in proportion to population, are among the most extensive in the world, and are operated under great climatic and geographical disadvantages.

1.—Summary Statistics of All Canadian Telegraphs, 1936-45

NOTE.—Figures for the years 1920-30 will be found at p. 722 of the 1938 Year Book and for 1931-35 at p. 637 of the 1943-44 edition.

Year	Gross Revenue	Operating Expenses	Net Operating Revenue	Pole-Line Mileage	Wire Mileage	Employees[1]	Offices	Messages, Land	Cablegrams[2]	Money Transferred
	$	$	$	miles	miles	No.	No.	No.	No.	$
1936...	10,378,873	8,710,349	1,668,524	52,907	363,180	6,064	4,121	12,735,186	1,391,903	4,296,738
1937...	11,410,333	9,467,398	1,942,935	53,001	369,411	6,401	4,761	13,456,330	1,488,767	4,550,731
1938...	10,611,207	9,399,631	1,211,576	52,408	373,283	6,347	4,900	12,814,234	1,404,244	4,103,690
1939...	10,474,489	9,297,902	1,176,587	52,464	374,550	6,339	4,845	12,462,912	1,492,389	3,539,988
1940...	10,922,674	9,625,035	1,297,639	52,396	380,318	6,588	4,781	12,732,082	1,657,148	3,118,166
1941...	12,777,920	10,878,222	1,899,698	52,246	379,794	7,272	4,832	14,281,570	2,251,979	3,868,040
1942...	14,826,431	11,925,417	2,901,014	52,418	381,953	7,544	4,979	15,422,131	2,831,549	5,439,880
1943....	16,955,288	12,942,108	4,013,180	52,414	384,350	8,330	4,908	16,469,564	3,013,752	7,677,080
1944...	16,986,491	14,404,835	2,581,656	52,414	387,677	8,050	4,834	16,445,450	2,324,863	8,242,926
1945...	18,016,289	15,062,231	2,954,058	52,447	391,476	8,230	4,804	17,666,904	2,192,173	8,006,128

[1] Excludes commission operators. [2] Excludes messages relayed to the United States.

Submarine Cables.—Sixteen transoceanic cables have termini in Canada—fourteen of them on the Atlantic Coast and two on the Pacific. In addition, there are eight cables between Atlantic coastal stations in Canada and the United States. The year in which the cable was first demonstrated to be of commercial value was 1866, and up to the present its use has greatly increased. The Atlantic cables are controlled by English and United States interests. The Pacific cable, from Canada to Australia and New Zealand, has been in operation since 1902, and was owned by a partnership of the Governments of the United Kingdom, New Zealand, Australia and Canada. As a result of the recommendation of the Imperial Wireless and Cable Conference of 1928, in view of increased wireless competition, it was decided to dispose of the Pacific and West Indian Islands cable systems to the Imperial and International Communication Co., a company formed to take over all Empire-owned cables, and lease the Empire-owned beam wireless systems. The necessary legislation was passed by the United Kingdom in February, 1929, and by Canada in June, 1929.

Section 2.—Telephones

A brief historical account of the early development of telephones in Canada is given at p. 781 of the 1934-35 Year Book.

Subsection 1.—Systems and Equipment

Telephone Systems.—The 3,151 telephone systems existing in 1945 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Dominion Department of Public Works and National Parks of Canada, Department of Mines and Resources. They also included 24 municipal systems, the largest operated by the cities of Edmonton, Fort William and Port Arthur. Of the 2,368 co-operative telephone companies no fewer than 1,121 were in Saskatchewan alone, 785 in Alberta and 212 in Nova Scotia. The largest among the 527 stock companies operating telephone systems in 1945 were the Bell Telephone Co., and the British Columbia Telephone Co. Over 60 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Co., and their telephones in Quebec and Ontario constitute 57 p.c. of the total for Canada.

Telephone Equipment.—During the years 1935-45 there has been an increase of 639,979 in the number of telephones in use, representing an increase of 38 p.c. in telephones per 100 population.

Of the 1,848,794 telephones in Canada in 1945, 1,037,015 or 56 p.c. were operated from automatic switchboards. The remainder were operated from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces.

2.—Mileages of Pole Line and Wire, and Telephones in Use, 1936-45

Note.—Figures for the years 1911-30 will be found at p. 724 of the 1938 Year Book and for 1931-35 at p. 639 of the 1943-44 edition.

Year	Systems	Pole-Line Mileage	Mileage of Wire	Telephones in Use					
				Business	Residential	Rural[1]	Public Pay	Total	Per 100 Population
	No.	miles	miles	No.	No.	No.	No.	No.	No.
1936....	3,063	210,926	5,197,042	371,401	641,229	229,940	23,658	1,266,228	11·5
1937....	3,191	209,767	5,307,884	386,669	676,001	235,763	24,361	1,322,794	11·9
1938....	3,203	211,895	5,397,244	396,975	695,961	240,204	26,277	1,359,417	12·1
1939....	3,212	212,603	5,518,329	406,279	720,043	243,730	27,220	1,397,272	12·3
1940....	3,193	212,680	5,681,594	421,050	762,331	248,982	28,675	1,461,038	12·8
1941....	3,209	213,393	5,882,223	446,739	827,522	257,409	30,476	1,562,146	13·6
1942....	3,192	217,958	6,014,596	463,827	867,307	266,176	30,465	1,627,775	14·0
1943....	3,187	218,702	6,057,880	484,429	901,228	275,202	31,303	1,692,162	14·3
1944....	3,174	220,161	6,108,070	504,791	928,061	286,521	32,550	1,751,923	14·6
1945....	3,151	222,435	6,333,761	531,697	983,074	300,757	33,266	1,848,794	15·3

[1] Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

The density of telephones in the different provinces is naturally influenced by the urbanization of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

3.—Telephones in Use, by Provinces, 1945

Province or Territory	On Individual Lines		On 2- and 4-Party Lines		On Rural Lines		Private Branch Exchanges and Extensions		Public Pay Stations	Total	Telephones per 100 Population
	Business	Residence	Business	Residence	Business	Residence	Business	Residence			
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
P.E.I...	991	1,157	172	1,659	228	2,453	764	146	72	7,642	8·3
N.S.....	7,761	15,103	762	18,479	940	12,835	9,877	2,535	1,077	69,369	11·2
N.B.....	4,966	8,797	981	13,538	1,060	7,585	6,459	1,381	854	45,621	9·7
Que.....	52,482	93,967	8,340	122,046	9,193	33,924	80,920	11,572	12,815	425,259	11·9
Ont.....	83,927	146,590	11,160	288,593	6,074	120,870	130,457	25,696	12,781	826,148	20·6
Man.....	11,386	38,235	66	12,840	1,421	15,347	16,118	2,071	2,303	99,787	13·6
Sask....	14,031	29,492	434	154	10	50,565	7,142	1,270	508	103,606	12·3
Alta....	17,122	40,353	33	474	1,173	18,715	11,815	1,132	1,060	91,877	11·1
B.C.....	22,554	9,234	466	92,520	2,110	16,158	30,493	4,040	1,796	179,371	18·9
Yukon..	18	Nil	Nil	Nil	33	63	Nil	Nil	Nil	114	2·3
Totals..	**215,238**	**382,928**	**22,414**	**550,303**	**22,242**	**278,515**	**294,045**	**49,843**	**33,266**	**1,848,794**	**15·3**

Subsection 2.—Telephone Finances

Important trends for the telephone industry in Canada are indicated in Tables 4 and 5. There were setbacks in revenues, operating expenses, salaries and wages, etc., during the depression years, but these were not so marked as in most other branches of industry.

4.—Financial Statistics of Telephones, 1936-45

Note.—Figures for the years 1911-30 will be found at p. 725 of the 1938 Year Book and for 1931-35 at p. 640 of the 1943-44 edition.

Year	Capitalization		Cost of Property and Equipment	Gross Revenue	Operating Expenses	Net Operating Revenue	Salaries and Wages[1,2]	Employees[2]
	Capital Stock	Funded Debt						
	$	$	$	$	$	$	$	No.
1936.......	111,239,775	160,331,601	330,048,263	59,770,591	51,938,102	7,832,489	23,365,977	17,775
1937.......	127,289,481	160,558,719	335,810,564	63,288,855	54,512,191	8,776,664	25,579,850	18,413
1938.......	128,802,946	163,398,749	342,227,172	64,749,255	55,231,173	9,518,082	26,020,463	17,925
1939.......	130,507,411	162,168,894	350,160,208	67,438,256	57,383,562	10,054,694	26,525,374	17,636
1940.......	132,153,922	160,630,190	359,454,188	72,008,157	62,266,583	9,741,574	27,147,055	18,696
1941.......	133,807,363	163,938,306	372,639,967	79,369,496	68,691,602	10,677,894	29,003,719	20,103
1942.......	135,034,375	165,634,194	386,164,071	87,057,252	75,221,887	11,835,365	31,580,290	20,360
1943.......	136,566,967	163,430,008	393,230,035	94,406,757	81,894,162	12,512,595	33,581,699	20,694
1944.......	137,719,691	161,307,878	401,862,799	101,082,353	87,739,283	13,343,070	37,261,134	21,978
1945.......	138,680,893	153,934,250	418,434,346	109,899,862	96,417,884	13,481,978	41,830,117	25,599

[1] Includes salaries and wages chargeable to capital account. [2] Excludes rural lines in Saskatchewan.

5.—Financial Statistics of Telephones, by Provinces, 1945

Province or Territory	Capital Liability	Cost of Property and Equipment	Gross Revenue	Expenses	Net Income	Salaries and Wages[1]	Employees
	$	$	$	$	$	$	$
P.E. Island....	830,952	1,284,468	333,295	296,213	37,082	114,327	109
Nova Scotia...	10,432,643	14,325,896	4,009,680	3,498,952	510,728	1,380,644	966
New Brunswick	6,460,279	10,450,488	2,872,224	2,454,310	417,914	1,163,124	757
Quebec........	168,209,008[2]	96,115,746	72,398,522	63,951,158	8,447,364	11,960,280	6,556
Ontario........	7,236,335[2]	178,244,560	3,878,410	3,253,349	625,061	17,700,995	10,556
Manitoba......	17,061,531	24,999,073	5,210,873	3,679,808	1,531,065	1,970,477	1,355
Saskatchewan..	34,007,212	35,147,098	5,909,637	5,857,836	51,801	1,507,572[3]	914[3]
Alberta........	22,241,548	19,933,041	5,683,867	4,621,049	1,062,818	1,685,725	1,309
British Columbia....	26,070,635	37,900,132	9,589,996	8,792,704	797,292	4,335,940	3,071
Yukon.........	65,000	33,844	13,358	12,505	853	11,033	6
Totals.......	**292,615,143**	**418,434,346**	**109,899,862**	**96,417,884**	**13,481,978**	**41,830,117**	**25,599**

[1] Includes wages charged to expenses and to capital. [2] Statistics of Bell Telephone Co. in Quebec and Ontario are included in Quebec. [3] Excludes employees and wages for rural systems.

Subsection 3.—Telephone Calls

Systems operating almost 90 p.c. of all telephones in Canada made estimates by actual count on days of normal business and, after adjustment for incompleted calls, holidays, Sundays, etc., the average was multiplied by 365. The long-distance calls, in practically all cases, were the actual long-distance calls put through or completed.

6.—Local and Long-Distance Calls and Averages per Telephone and per Capita, 1936-45

NOTE.—Figures for 1928-35 will be found at p. 718 of the 1939 Year Book.

Year	Local Calls	Long-Distance Calls	Total Calls	Total Calls per Capita[1]	Averages per Telephone		
					Local	Long-Distance	Total
	No.	No.	No.	No.	No.	No.	No.
1936.......	2,444,517,000	27,990,000	2,472,507,000	226	1,931	22·1	1,953
1937.......	2,582,984,000	30,823,000	2,613,807,000	237	1,953	23·3	1,976
1938.......	2,592,803,000	30,289,000	2,623,092,000	235	1,907	22·3	1,929
1939.......	2,742,739,000	31,611,000	2,774,350,000	246	1,963	22·6	1,986
1940.......	2,864,215,000	34,888,000	2,899,103,000	255	1,960	23·9	1,984
1941.......	2,971,780,000	39,747,000	3,011,527,000	262	1,902	25·4	1,927
1942.......	2,954,644,000	44,230,000	2,998,874,000	257	1,815	27·2	1,842
1943.......	2,929,446,000	50,348,000	2,979,794,000	252	1,731	29·8	1,761
1944.......	2,955,975,000	56,678,000	3,012,653,000	252	1,687	32·4	1,720
1945.......	3,145,492,000	64,788,000	3,210,280,000	265	1,701	35·0	1,736

[1] Per capita figures are based on official estimates of population given at p. 100.

PART VII.—RADIO-COMMUNICATIONS*

The Canada Year Book, 1945, at pp. 644-646, gives an outline of the development of administrative control over radio-communication in Canada.

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* Sections 1 and 2 of this Part have been revised by the Department of Transport.

Section 1.—Administration

Subsection 1.—Technical Control and Licensing

All radio stations within the Dominion of Canada are required to be licensed, whether used for transmission or reception, or both. The issuance of all classes of licences, the assignment of call signs and frequencies, and the inspection and monitoring of radio stations in Canada is carried out by the personnel of the Radio Division. There were 86,961 radio stations of all classes inspected by departmental radio inspectors during 1945-46. Examinations for certificates of proficiency in radio are conducted by the inspection staff of the Radio Division. Certificates of all classes to the number of 13,553 were issued up to Mar. 31, 1946.

The Radio Regulations for Ship Stations issued under the Canada Shipping Act, 1934, lay down the specifications of radio equipment to be carried on certain classes of vessels, and also designate the qualifications of the operators required.

To ensure safety of life at sea, certain passenger steamers and cargo vessels, by international regulation, must carry radio equipment manned by competent operators holding certificates of proficiency in radio. The Department maintains a complete radio inspection service to enforce this regulation. Inspectors, located at major ports throughout the Dominion, are responsible for checking the efficiency of the radio equipment on ships calling at Canadian ports, regardless of their nationality, and for seeing that only competent operators are carried. Under the Canada Shipping Act, 1934, ships of foreign and Canadian registry, while in Canadian ports, are surveyed with a view to the issuance of safety certificates.

1.—Radio Stations in Operation, by Class, as at Mar. 31, 1942-46

Class of Station	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.
Aeronautical direction-finding (Government)	2	2	1	1	Nil
Aeronautical ground to air	2	2	66	80	88
Aeronautical radio range (Government)	54	55			
Aircraft	138	143	150	161	211
Amateur experimental[1]	Nil	Nil	Nil	Nil	4,048
Coast (Government)	29	29	29	29	28
Commercial receiving	120	125	121	129	91
Commercial receiving (special)	92	96	95	99	100
Direction finding, short-wave (Government)	Nil	Nil	3	3	3
Experimental[1]	52	52	54	59	90
Fan marker (Government)	2	3	5	9	10
Ionosphere	Nil	Nil	Nil	Nil	2
Land	1	1	1	1	1
Limited coast	6	6	6	6	6
Marine direction-finding (Government)	13	13	13	13	13
Monitoring ((Government)	Nil	Nil	5	5	5
Municipal police private commercial	55	64	66	73	86
Private commercial	1,184	1,292	1,346	1,420	1,673
Private commercial broadcasting	102	102	115	139	142
Operated by CBC	*18*	*15*	*28*	*41*	*41*
Operated by private owners	*84*	*87*	*87*	*98*	*101*
Private receiving[2]	1,623,489	1,728,880	1,770,900	1,759,100	1,754,351
Public commercial	85	85	52	53	58
Radio beacon (Goverment)	26	28	32	37	37
Radiophone (Government)	12	12	12	15	16
Radio training school	9	10	12	11	13
Ship (commercial)	489	512	628	800	943
Ship (commercial receiving only)	85	64	46	23	38
Ship (Government)	65	64	69	69	69
Weather-reporting (Government)	1	1	5	6	5
Totals	**1,626,113**	**1,731,641**	**1,773.832**	**1,762,341**	**1,762,127**

[1] All licences for privately owned experimental stations and for all amateur experimental stations were suspended at the outbreak of war in September, 1939. [2] Includes licences issued free, numbering 8,435 in 1946, 8,375 in 1945, 7,896 in 1944, 7,465 in 1943, and 6,998 in 1942.

According to the number of private receiving licences shown in Table 2 as having been issued in each province in the year ended Mar. 31, 1946, the estimated population per receiving licence was: Prince Edward Island, 9·1; Nova Scotia, 7·6; New Brunswick, 8·7; Quebec, 7·6; Ontario, 6·8; Manitoba, 6·8; Saskatchewan, 6·6; Alberta, 6·6; British Columbia, 6·1; Yukon and Northwest Territories, 51·9 and for Canada as a whole 7·0.

2.—Private Receiving Licences[1] Issued in Canada, by Provinces, Years Ended Mar. 31, 1940-46

Province	1940	1941	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	5,694	6,337	8,962	8,516	10,583	10,228	10,346
Nova Scotia	55,796	62,496	71,776	81,524	79,887	82,694	80,759
New Brunswick	37,729	41,758	48,728	52,745	52,698	53,240	55,043
Quebec	318,387	346,328	400,902	436,288	455,053	456,825	479,852
Ontario	520,503	558,780	604,981	637,116	647,167	627,348	607,968
Manitoba	89,704	94,357	104,384	108,435	110,249	106,144	107,343
Saskatchewan	98,707	109,713	122,304	127,529	128,754	129,298	126,002
Alberta	104,283	108,649	122,489	126,525	128,950	130,209	121,295
British Columbia	113,945	125,714	138,191	149,481	157,060	162,655	165,281
Yukon and N.W.T.	409	585	772	721	499	459	462
Canada	**1,345,157**	**1,454,717**	**1,623,489**	**1,728,880**	**1,770,900**	**1,759,100**	**1,754,351**

[1] Includes licences issued free, numbering 8,435 in 1946, 8,375 in 1945, 7,896 in 1944, 7,465 in 1943, 6,998 in 1942, 6,796 in 1941, and 5,862 in 1940.

Subsection 2.—Expenditures and Revenues of Radio Administration

Prior to Apr. 1, 1939, the licence fee for private commercial broadcasting stations was $50. Since that date, however, the fee has been determined by the power of the station and the density of population within its service radius and varies from $50 per annum in the case of low-power, short-wave, and non-commercial university stations, to $10,000 per annum in the case of 50 kw. commercial stations.

3.—Expenditures and Revenues of Radio Services, Department of Transport, Years Ended Mar. 31, 1943-46

Item	1943	1944	1945	1946
Expenditures	$	$	$	$
Administration of Radiotelegraph Act and Regulations	130,636	142,691	139,397	155,133
Radio Direction-Finding Station, Radiobeacon and Radiotelegraph Stations—operation and maintenance	664,370	662,890	700,035	699,322
Suppression of local electrical interference	131,774	141,586	164,357	166,396
Issue of radio receiving licences	189,835	199,729	188,273	202,150
Airways and Airports, Radio—				
Operation and maintenance	635,352	716,061	800,220	918,211
Construction	123,471	272,796	707,140	495,088
War appropriation	1,078,088	1,727,213	2,171,727	2,137,768
Totals, Expenditures	**2,953,526**	**3,862,966**	**4,871,149**	**4,774,068**
Revenues				
Radio traffic tolls	70,804	92,960	78,619	115,945
Amount deducted from receiving licence fees collected on behalf of the CBC to cover cost of collection (exclusive of commissions)[1]	189,835	199,729	188,273	202,150
Licence fees (miscellaneous)	14,992	15,984	15,555	20,229
Fines and forfeitures	12,545	19,254	23,016	26,691
Examination fees	1,506	1,443	1,407	1,744
Publications	1,670	1,332	894	511
Rental of quarters (employees)	33,767	42,951	56,815	60,309
Miscellaneous	1,340	29,327	31,744	21,752
Totals, Revenues	**326,459**	**402,980**	**396,323**	**449,331**

[1] Sect. 14 of the Canadian Broadcasting Act, 1936, provides that, "The Minister of Finance shall deposit from time to time in the Bank of Canada or in a chartered bank to be designated by him to the credit of the Corporation:—(a) the moneys received from licence fees in respect of private receiving licences and private station broadcasting licences, after deducting from the gross receipts the cost of collection and administration". During the fiscal year 1945-46, $4,005,103 (exclusive of commissions) was collected from the issuance of Radio Receiving and Broadcasting Licences as compared with $4,000,801 during 1944-45; $4,018,063 during 1943-44; and $3,925,028 during 1942-43.

There are two classes of private receiving licences, one for battery-operated receivers (fee $2 per annum), and the other for electrically operated receivers (fee $2·50 per annum). Free licences are issued for crystal receiving sets and to blind persons, schools, hospitals and charitable institutions; also for receiving sets installed in barracks, mess-halls, canteens or recreational rooms for the gratuitous entertainment of members of naval, military or air forces and merchant seamen; and sets operated by persons whose names appear on the diplomatic list of the Department of External Affairs and consuls general of career as listed in the Annual Report of the Department of External Affairs.

Exact figures of revenues received from private receiving licences are not available by provinces. This is partly due to the fact that commissions paid for the issuance of licences vary according to the classification in which the issue falls, that is, post office, radio dealer, house-to-house vendor, etc. In Table 4, therefore, total revenue received from the sale of private receiving licences has been estimated according to the number of licences issued in each province.

4.—Revenues from Private Receiving Licences Issued, by Provinces, Years Ended Mar. 31, 1940-46

NOTE.—The figures in this table are approximations only; see text above. Comparable figures for 1933-39 will be found at p. 722 of the 1940 Year Book.

Province	1940	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$	$
Prince Edward Island	12,075	13,335	18,568	17,586	21,521	21,009	21,258
Nova Scotia	125,763	140,346	160,236	182,284	178,472	185,603	181,150
New Brunswick	85,364	94,016	108,607	117,608	117,403	119,493	122,858
Quebec	735,521	797,892	921,030	1,001,362	1,044,230	1,047,983	1,106,824
Ontario	1,194,050	1,281,236	1,385,777	1,460,397	1,482,491	1,436,984	1,396,387
Manitoba	197,311	207,268	228,218	237,611	241,191	233,781	234,732
Saskatchewan	203,757	224,924	249,979	261,336	264,056	267,070	260,777
Alberta	222,695	231,729	260,221	269,538	274,139	278,014	261,010
British Columbia	259,749	287,249	315,512	341,543	358,475	372,408	378,744
Yukon and N.W.T	783	1,131	1,511	1,413	936	856	863
Canada	**3,037,068**	**3,279,126**	**3,649,659**	**3,890,678**	**3,982,914**	**3,963,201**	**3,964,603**

Subsection 3.—Investigation and Suppression of Inductive Interference

Twenty-four cars equipped with sensitive apparatus for the investigation of interference to radio reception operate from permanent inspection offices located in 21 cities across the Dominion. The inspectors in charge of these cars interview broadcast listeners who have reported interference, and determine the actual source. Tests are then made to ascertain whether or not the interference can be suppressed effectively and economically. The owners of the interfering apparatus are advised of the results of the tests carried out and are given full information regarding the most effective means of suppressing or eliminating the interference.

The Radio Division has been co-operating with the Canadian Standards Association in drafting specifications on interference suppressors and measurements of radio interference, also on interference from street railways, power lines, motor-vehicles, low-voltage apparatus, etc. Many special types of interference suppressors have been developed and have proven superior to those previously used.

5.—Investigations of Inductive Interference, Years Ended Mar. 31, 1942-46

Item	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.
Investigations					
Electrical distribution systems and power lines	2,022	1,067	1,275	1,217	1,645
Domestic and commercial electrical appliances	2,447	1,549	1,472	1,808	2,859
Defective receivers and radio apparatus	839	501	518	507	647
Totals	**5,308**	**3,117**	**3,265**	**3,532**	**5,151**
Action Taken					
Sources definitely reported cured	4,497	2,803	2,956	3,092	4,107
Sources not yet reported cured	698	245	241	379	960
Sources at present incurable	113	69	68	61	84

Section 2.—Operation of Radio-Communications

Subsection 1.—Federal Government Radio Stations

Department of Transport, Marine Service.—Four distinct networks of stations provide a complete radio aids-to-navigation service for ships. These networks serve the following areas: Great Lakes; Gulf of St. Lawrence and Atlantic Coast; Hudson Bay, Strait, and Sub-Arctic; and Pacific Coast. The first three networks are interlocking. The Department of Transport maintains communication between Ottawa and the east and west coasts, and Hudson Bay and Strait by means of high-frequency stations.

During the fiscal year 1945-46, Government radiotelegraph stations on the east coast, west coast, the Great Lakes, and Hudson Bay and Strait handled 789,139 messages or 19,749,036 words, compared with 515,708 messages or 17,724,696 words handled during 1944-45.

6.—Type of Service Performed and Areas Served by Marine Radio Stations, as at Mar. 31, 1946

Service Performed	Area Served				No. of Stations
	Great Lakes	Gulf of St. Lawrence and East Coast	Hudson Bay, Strait, and Sub-Arctic	Pacific Coast	
Coast Stations		Clarke City, Que. Ellis Bay, Anticosti		Vancouver, B.C.	3
Combined Coast and Direction-Finding Stations		Camperdown, N.S.	Cape Hopes Advance, Que. Resolution Island, N.W.T.		3
Combined Coast, Direction-Finding and Radiotelephone Stations		Belle Isle, Nfld. Canso, N.S. Saint John, N.B. Yarmouth, N.S.	Chesterfield, N.W.T. Churchill, Man. Nottingham Island, N.W.T.	Pachena, B.C.	8
Combined Coast, and Radiobeacon Stations		Lurcher Lightship Point Amour, Nfld. Sambro Lightship			3

6.—Type of Service Performed and Areas Served by Marine Radio Stations, as at Mar. 31, 1946—concluded

Service Performed	Area Served				No. of Stations
	Great Lakes	Gulf of St. Lawrence and East Coast	Hudson Bay, Strait, and Sub-Arctic	Pacific Coast	
Combined Coast and Radiotelephone Stations	Kingston, Ont. Midland, Ont. Point Edward, Ont. Port Arthur, Ont. Port Burwell, Ont. Sault Ste. Marie, Ont. Toronto, Ont.	Fame Point, Que. Father Point, Que. Grindstone Island Halifax, N.S. Montreal, Que. North Sydney, N.S. Quebec, Que.	Coppermine, N.W.T.	Alert Bay, B.C. Bull Harbour, B.C. Cape Lazo, B.C. Estevan Point, B.C. Prince Rupert, B.C. Victoria, B.C.	21
Combined Coast, Radiobeacon and Radiotelephone Stations				Dead Tree Point, B.C.	1
Combined Coast, Direction-Finding and Radiobeacon Stations		Cape Race, Nfld.			1
Radiobeacon Stations	Angus Island, Ont. Burlington, Ont. Caribou Island, Ont. Cove Island, Ont. Goderich, Ont. Gros Cap Lightship (Lake Superior), Ont. Hope Island, Ont. Long Point. Ont. Main Duck Island, Ont. Michipicoten Island, Ont. Port Colborne, Ont. Port Weller, Ont. South East Shoal, Ont. Slate Island, Ont.	Belle Isle, N.E. Nfld. Cape Bauld, Nfld. Cape Ray, Nfld. Cape Whittle, Que. East Point, P.E.I. Flat Point, N.S. Flower Island, Nfld. Heath Point, Anticosti Natashquan Point, Que. Partridge Island, N.B. Perroquet Island, Que. Point des Monts, Que. Red Islet, Que. Sable Island, N.S. Seal Island, N.S. Western Head, N.S. West Point, Anticosti		Cape St. James, B.C. Langara Island, B.C. Point Atkinson, B.C. Quatsino (Kain's Island), B.C. Race Rocks, B.C. Triple Island, B.C.	37
Combined Radiobeacon and Direction-Finding Stations		St. Paul Island, N.S.			1
Radiotelephone	Welland Canal, Guard Gate Lock No. 7	Bird Rock, Que. Gannet Rock, N.B. Head Harbour, N.B. Little Wood Island, N.B. Southwest Head, N.B. Southwest Wolf Island, N.B.		Banfield, B.C. Cape Beale, B.C. Carmanah, B.C. Egg Island, B.C. Ivory Island, B.C. Lennard Island, B.C. Merry Island, B.C. Pine Island, B.C. Tofino, B.C.	16
Totals......	**22**	**42**	**6**	**24**	**94**

Department of Transport, Aeronautical Service.—The radio services provided for aviation may be divided into two categories: first, those furnished on behalf of aircraft flying trans-Canada and Newfoundland routes; and secondly those intended for aircraft flying transatlantic routes. This phase of radio in Canada is being rapidly developed. Aviation radio range stations now extend from coast to coast providing aid to air navigation for the Government-owned Trans-Canada Air Lines as well as for any other aircraft flying such routes.

During the fiscal year 1945-46 departmental airway radio stations handled 1,674,889 messages or 40,669,632 words, compared with 1,788,069 messages or 29,645,259 words during 1944-45.

7.—Type of Service Performed and Routes Served by Aeronautical Radio Stations, as at Mar. 31, 1946

Service Performed	Routes Served			No. of Stations
	Trans-Canada and Newfoundland		Trans-Canada and Transatlantic	
Radio Range Stations	Armstrong, Ont. Blissville, N.B. Broadview, Sask. Calgary, Alta. Charlottetown, P.E.I. Churchill, Man. Clear Creek, Ont. Cowley, Alta. Dafoe, Sask. Dartmouth, N.S. Earlton Junction, Ont. Greenwood, N.S. Kapuskasing, Ont. Kenora, Ont. Killaloe, Ont. Kimberley, B.C. Lethbridge, Alta. London, Ont. Medicine Hat, Alta. Mégantic, Que.	Muskoka, Ont. Nakina, Ont. Neepawa, Man. North Bay, Ont. Ottawa, Ont. Pagwa, Ont. Penhold, Alta. Pennfield Ridge, N.B. Regina, Sask. Rivers, Man. Saskatoon, Sask. Stirling, Ont. Swift Current, Sask. The Pas, Man. Torbay, Nfld. Toronto, Ont. Vermilion, Alta. Windsor, Ont. Yarmouth, N.S. Yorkton, Sask.		40
Combined Radio Range, Radiotelephone and Radiotelegraph Stations	Abbotsford, B.C. Aishihik, Y.T. Ashcroft, B.C. Beatton River, B.C. Buchans, Nfld. Carmi, B.C. Comox, B.C. Copper Lake, N.S. Cranbrook, B.C. Crescent Valley, B.C. Dog Creek, B.C. Edmonton, Alta. Fort Nelson, B.C. Fort St. John, B.C. Fort Simpson, N.W.T. Fort William, Ont. Gander, Nfld. Goose, Lab. Grande Prairie, Alta. Massett, B.C. Moncton, N.B. Mont Joli, Que. Montreal, Que. Norman Wells, N.W.T.	North Battleford, Sask. Patricia Bay, B.C. Penticton, B.C. Porquis Junction, Ont. Port Hardy, B.C. Prince George, B.C. Princeton, B.C. Quebec, Que. Quesnel, B.C. St. Andrews, Nfld. Seven Islands, Que. Sioux Lookout, Ont. Smithers, B.C. Smith River, B.C. Snag, Y.T. Sydney, N.S. Teslin, Y.T. Tofino, B.C. Vancouver, B.C. Watson Lake, Y.T. Whitecourt, Alta. Whitehorse, Y.T. Winnipeg, Man.		47
Combined Radiotelephone and Radiotelegraph Stations			Shediac, N.B.	1
Fan Marker Stations	Barrington, Que. Cote St. Luc, Que. Greata, B.C. Hudson Heights, Que. Laberge, Y.T.	Maple Ridge, B.C. Moyie Lake, B.C. Pine Island, B.C. St. Mathias, Que. Woodbridge, Ont.		10
Weather Reporting Stations	Dore Lake, Que. Fort McKenzie, Que. Nitchequon, Que.	Port Harrison, Que. Sandgirt Lake, Lab.		5
Totals, Stations Serving Specified Routes............	**102**		**1**	**103**

Department of Mines and Resources.—This Department operates 59 stations—1 private commercial station and 1 experimental station at the Dominion Observatory for the transmission of time signals, 29 private commercial stations in the National Parks of Canada, 2 receiving stations, 9 fixed and 17 portable private commercial stations.

Department of National Defence.—Militia Services (Royal Canadian Corps of Signals) operates, in addition to stations established for military purposes, 11 permanent stations and 2 summer stations situated along the Mackenzie River and in Yukon Territory on behalf of the Department of Mines and Resources, Bureau of Northwest Territories and Yukon Affairs.

Department of Public Works.—The Department of Public Works operates a total of 23 stations—12 to provide emergency communication between the mainland and certain islands, 9 to provide emergency links in existing landline circuits, and 2 for Departmental communication.

Department of National Revenue.—Two private commercial stations are operated by the Department of National Revenue.

Subsection 2.—Provincial Government Radio Stations

Provincial Governments operate radio stations as follows: Nova Scotia, 2; New Brunswick, 4; Quebec, 18; Ontario, 236 (including 12 aircraft stations); Manitoba, 34; Saskatchewan, 63; Alberta, 135; and British Columbia, 267, in addition to which the British Columbia Provincial Police Department operates 37 stations to provide communication between police headquarters and the various units of the force. The Police Departments of 86 municipalities throughout the Dominion also operate radio stations.

Subsection 3.—Privately Owned Commercial Stations

From Table 1 it will be noted that there were 6 limited coast stations, 58 public commercial stations, and 1,673 private commercial stations in operation in the Dominion at Mar. 31, 1946. A public commercial station situated at Drummondville, Que., provides transoceanic radiotelegraph and radiotelephone services to the United Kingdom, Australia, Bermuda and Jamaica, and a radiotelephone service to Newfoundland. These stations are owned and operated by private individuals or companies.

The limited coast stations are, as a rule, privately owned and provide a ship-to-shore communication service with ships owned or operated by the licensees only. One such station is, however, owned and operated by the Canadian Marconi Company. It is situated at Drummondville, Que., and provides a long-range radiotelephone service to ships at sea. The facilities of this station are open to the general public. The services performed by commercial stations, both public and private, are many and varied. These stations are located in areas not served by telephone, telegraph, or other means of telecommunication. The majority perform point-to-point radiotelegraph or radiotelephone service. These stations provide an invaluable means of contact with mining camps, lumber mills, exploration and survey parties, trading posts, and many points that would otherwise be out of touch with current affairs.

Private commercial stations may be used only for the handling of messages relative to the private business of the licensee.

Section 3.—The Canadian Broadcasting Corporation*

The Canadian Broadcasting Corporation, operating the first nationally owned broadcasting system in North America, marked its tenth anniversary on Nov. 2, 1946. The following article gives a picture of the history and development of the CBC during those ten years, while the subsections following the article cover in more detail the administration, present operations and finances of the Corporation.

HISTORY AND DEVELOPMENT OF THE CANADIAN BROADCASTING CORPORATION

The organization of a national radio system in Canada was based on the conditioning factors of the Dominion's vast territory, its two official languages, its often widely separated communities, and the varying interests and cultural background of its people. In the early 1920's, there was a tendency to concentrate radio stations in the large urban centres, with the result that much of Canada's rural population was not able to enjoy the new medium of entertainment and information.

Established by Parliament in 1936, to succeed the Canadian Radio Broadcasting Commission formed in 1932, the Canadian Broadcasting Corporation was instructed to build a chain of high-power stations across Canada in order to serve as many Canadians as possible. The Corporation was designed to operate in the public interest, as provided for under the Canadian Broadcasting Act, 1936. The revenue is derived from an annual licence fee of $2·50 paid by listeners, together with revenue from commercially sponsored programs.

When the CBC began operating in 1936, network broadcasting was being carried on for six hours daily, and only about 60 p.c. of the population was being reached. With instructions from Parliament to proceed as rapidly as possible with a plan for national coverage, the Board of Governors of the newly formed CBC called on its engineering staff for technical surveys and recommendations for improving national radio service. A comprehensive plan was drawn up, and the CBC began at once to expand the publicly owned broadcasting facilities. Among the projects which have been completed are the following: 50,000-watt stations at Montreal, Que., Toronto, Ont., Sackville, N.B., and Watrous, Sask.; an increase in power to 5,000 watts at CBR, Vancouver, B.C.; new 5,000-watt transmitters for CBM, Montreal, and CJBC, Toronto; and the establishment of CBC stations at Quebec city and Chicoutimi, Que., and Halifax, N.S. In addition, CBC engineers have designed special low-power relay transmitters, which operate almost automatically at isolated points along the CBC network in the interior of British Columbia, in northern Ontario and in New Brunswick. Though the work on the plan for national coverage was brought to a virtual standstill during the war years, it has since been resumed with the building of a 50,000-watt station in Alberta. Another is scheduled to be built in Manitoba. The power of CJBC, Toronto, is to be increased to 50,000 watts, and the power of stations at Halifax, N.S., Chicoutimi, Montreal and Quebec city, Que., Ottawa, Ont., and Vancouver, B.C., is also to be increased.

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* Prepared under the direction of Dr. Augustin Frigon, C.M.G., General Manager, Canadian Broadcasting Corporation.

In 1936, one stumbling block in the way of a national radio system for Canada was lack of agreement among the nations of North and South America as to the use of radio wavelengths, or channels. While the network taken over by the CBC in 1936 served about 60 p.c. of the population in the daytime, this coverage was reduced to about 49 p.c. at night by interference from high-power stations in the United States and Mexico using some of the same channels in use by Canadian stations. As one of its first acts, the CBC asked the Canadian Government to initiate steps which, ultimately, resulted in the Havana Regional Radio Conference held in March, 1937, and the Inter-American Radio Conference of November, 1937, at which the North American Regional Broadcasting Agreement was signed. Wavelengths were allocated to the various countries on a basis providing protection from interference for stations on the same channels, according to the territory they were to serve. The agreement provided Canada with a sufficient number of "clear" channels (on which the signal of a high-power station is protected from interference up to long distances or to the borders of the country in which it is situated) to carry out the plan of national coverage.

When the new 50,000-watt stations CBL and CBF, at Toronto and Montreal, were put into operation during the fiscal year 1937-38, the day-and-night coverage of the Corporation's network was increased to about 80 p.c. of the population. Network broadcasting was increased first to 12 hours, and then to 16 hours a day, on both the English-language and French-language networks.

While technical improvements continued, the Corporation was steadily expanding its program service. During the 1937-38 season, the CBC broadcast a series of radio symphonic concerts from Montreal. These concerts were presented as an addition to the regular schedule of concerts by existing symphonies in other large centres. The Corporation adopted a policy of obtaining the best programs, both commercial and sustaining, available in the United States and Great Britain, in addition to increasing its own Canadian productions.

In the autumn of 1938, the Corporation undertook what was then its most ambitious project: a series of 11 Shakespearean plays, in which leading Shakespearean actors were featured. Among the guest artists were such well known personalities as Sir Cedric Hardwicke, Margaret Anglin, Charles Warburton, Walter Huston, Eva LeGallienne, Walter Hampden, and Dennis King. The CBC held 500 auditions while selecting the supporting casts, and unearthed much new talent.

The summer of 1939 brought the CBC what was probably the greatest task ever undertaken in broadcasting up to that time—the visit of the King and Queen to Canada. Many months before the Royal Visit, preparations were going on within the CBC engineering division so that adequate facilities and equipment would be available to cover the visit. Complete new broadcasting facilities were designed by CBC engineers, and equipment built to rigid specifications was distributed across Canada well ahead of time. CBC commentators were able, by this means, to keep Canadians completely informed of Their Majesties' progress over a period of six weeks and a distance of 7,000 miles. A total of 91 special broadcasts was devoted to the Royal Visit.

In late August, 1939, as the International situation became acute and events moved with ever-increasing momentum toward war, the whole program pattern of the CBC was changed almost overnight to meet the public demand for an extended service of news bulletins, analyses and informed comment. A CBC Program Unit of one commentator and one engineer accompanied the First Canadian Division when it sailed for the United Kingdom in December, 1939, and a series of historic recordings were sent back to Canada by short-wave after their arrival. Later, this Program Unit was expanded and became the CBC Overseas Unit. It was equipped with armoured, mobile recording vans so that correspondents and engineers could follow the Canadian troops wherever they went, and report their progress to Canadians at home. During the course of the War these vans saw service in England, Africa, Sicily, Italy, France, the Low Countries and Germany, and CBC correspondents were able to provide a service of war reports unequalled by any other network.

In the field of community life, the development of listening groups as a corollary to educational broadcasts was the subject of an experimental project fostered by the CBC and the Canadian Association for Adult Education in 1940. Over 550 listening groups were formed across Canada to follow a series entitled "Enquiry into Co-operation", with the provision of study material and reading lists. This series set the pattern for two later discussion series, "Of Things to Come", in which 20,000 people were members of listening groups, and the present annual series, "Citizens' Forum".

A similar discussion series designed especially for the rural audience was begun in 1940 under the title "National Farm Radio Forum". This series—a joint project of the CBC, the Canadian Federation of Agriculture and the Canadian Association for Adult Education—gives farmers in all parts of Canada an opportunity to exchange views and opinions on common problems.

The 1940-41 season brought other important developments in Canada's national radio system. The CBC National News Service was established, with a central newsroom at Toronto and regional newsrooms at Halifax, Montreal, Winnipeg and Vancouver, to provide a complete service of news bulletins written especially for radio. School broadcasts, prepared in co-operation with Provincial Departments of Education, were begun in the Maritimes, British Columbia and Quebec. National School Broadcasts, prepared and presented by the CBC itself, began the following year. These broadcasts, developed with the advice of the National Advisory Council on School Broadcasting, are designed to strengthen the sense of Canadian citizenship in the younger generation.

Perhaps the most interesting war work for the members of the CBC engineering division who were not overseas with the troops was the assistance given to the Free French Forces in establishing a powerful short-wave transmitter at Brazzaville, in French equatorial Africa. Members of the CBC engineering division spent considerable time abroad on initial plans for the transmitter, and the engineering offices at Montreal were able to render vital assistance in preparing engineering layouts, and mechanical and electrical blueprints.

Their work on the short-wave transmitter for the Free French Forces stood the engineers in good stead when they were called on to design and build a powerful short-wave station for the Canadian Government. The preparations for a Canadian short-wave service had begun as early as 1938, and an Order in Council authorizing the establishment of the CBC International Service was passed in 1942. CBC engineers chose Sackville, N.B., as the site, and designed a directional, high-gain antenna system for short-wave broadcasting. By means of remotely controlled switches, the two 50,000-watt transmitters in the short-wave plant can be attached to any one of three antenna systems, and each of these can be reversed. In effect, this means that Canadian short-wave programs can be aimed in any one of six directions, to cover every important land area. The CBC International Service transmitters are so effective that they provide the strongest and steadiest signal heard in the United Kingdom from the North American continent.

While the International Service is making Canada's name and her people better known abroad, the CBC is striving continually to improve its domestic service. In its ten years of broadcasting, the CBC has made tremendous contributions to the cultural life of Canada. It has done more than almost all other bodies put together to make it possible for musicians of all kinds to devote themselves entirely to their art. The Corporation is the greatest single support of Canadian symphony orchestras, paying the leading orchestras, at Vancouver, Toronto and Montreal, a total of $50,000 annually for broadcast concerts. In the past ten years, the CBC has paid almost $10,000,000 in fees to Canadian musicians, actors and writers.

Subsection 1.—Administration of the CBC

The Corporation operates under the Canadian Broadcasting Act, 1936, and is headed by a Board of nine Governors, chosen to give representation to the principal geographic divisions of Canada, and a full-time Chairman. The Board determines and supervises policy, but day-to-day operations and administration are the responsibility of the General Manager. The Administrative organization of the CBC consists of the following Divisions: Executive, Personnel and Administration, Finance, Engineering, Program, Press and Information, Commercial, Broadcast Regulations, and Station Relations.

Under the Canadian Broadcasting Act, the CBC is responsible for regulations controlling the establishment and operation of networks, the character of any and all programs broadcast over its own and privately owned stations, and the proportion of time that may be devoted to advertising in broadcast programs. The CBC neither exercises, nor authorizes any private station to exercise on its behalf, censorship of any broadcast program. The responsibility of seeing that the regulations are observed rests with the individual station management.

Subsection 2.—Operations of the CBC

Broadcasting Facilities.—Under Sect. 24 of the Act, the CBC is required to review all applications for licences for new stations as well as applications for increases in power and changes in frequency or location. Two considerations are involved: the first is non-interference with the present and proposed facilities of the CBC, and the second is that high-power transmission facilities, on both long- and short-wave bands, are reserved for use by the CBC. Within these limitations, it is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

The CBC operates three networks: the Trans-Canada and Dominion networks, serving English-language audiences from Atlantic to Pacific, and the French network, serving French-language listeners in Quebec. The Trans-Canada network is made up of 24 basic stations: 7 CBC-owned and 17 privately owned. The Dominion network consists of 29 basic stations, of which 28 are privately owned. The French network has 3 basic CBC-owned stations, and 9 privately owned stations. Four of the 11 CBC-owned stations have 50,000-watt transmitters. The CBC leases some 25,000 miles of wire lines each day in order to carry on network operations in Canada, which lies across five of the world's time zones. In order to present programs at suitable times, and to give expression to varying interests in the five regions, CBC maintains regional offices and production facilities at Halifax, N.S.; Chicoutimi, Quebec city, and Montreal, Que.; Ottawa and Toronto, Ont.; Winnipeg, Man.; and Vancouver, B.C.

8.—Broadcasting Stations of CBC Networks, as at Jan. 10, 1947

(Basic Stations)

NOTE.—The stations marked with an asterisk (*) are CBC-owned.

Station Location		Frequency	Power	Station Location		Frequency	Power
		kc.	watt			kc.	watt
Trans-Canada Network—				**Dominion Network**—concluded			
CBH*	Halifax	1,240	100	CHOV	Pembroke	1,340	250
CJCB	Sydney	1,270	1,000	CFJM	Brockville	1,450	250
CBA*	Sackville	1,070	50,000	CHEX	Peterborough	1,430	1,000
CHSJ	Saint John	1,150	1,000	CJBC*	Toronto	1,010	5,000
CFNB	Fredericton	550	1,000	CFPL	London	1,570	5,000
CBM*	Montreal	940	5,000	CFCO	Chatham	630	100
CBO*	Ottawa	910	1,000	CFPA	Port Arthur	1,230	250
CKWS	Kingston	960	5,000	CJRL	Kenora	1,220	1,000
CBL*	Toronto	740	50,000	CKRC	Winnipeg	630	1,000
CFCH	North Bay	600	100	CJGX	Yorkton	940	1,000
CJKL	Kirkland Lake	560	5,000	CKX	Brandon	1,150	1,000
CKGB	Timmins	1,470	1,000	CKRM	Regina	980	1,000
CKSO	Sudbury	790	5,000	CHAB	Moose Jaw	800	5,000
CJIC	Sault Ste. Marie	1,490	250	CFQC	Saskatoon	600	1,000
CKPR	Fort William	580	1,000	CKBI	Prince Albert	900	[1]
CKY	Winnipeg	990	15,000	CFRN	Edmonton	1,260	1,000
CBK*	Watrous	540	50,000	CFCN	Calgary	1,010	10,000
CJCA	Edmonton	930	1,000	CJOR	Vancouver	600	5,000
CFAC	Calgary	960	1,000	CJVI	Victoria	900	[2]
CJOC	Lethbridge	1,060	1,000	CHWK	Chilliwack	1,340	100
CFJC	Kamloops	910	1,000				
CKOV	Kelowna	630	1,000	**French Network—**			
CJAT	Trail	610	1,000	CBJ*	Chicoutimi	1,580	1,000
CBR*	Vancouver	1,130	5,000	CBV*	Quebec	980	1,000
				CBF*	Montreal	690	50,000
Dominion Network—				CHNC	New Carlisle	610	[1]
CHNS	Halifax	960	1,000	CJBR	Rimouski	900	[1]
CJFX	Antigonish	580	1,000	CHGB	Ste. Anne-de-la-Pocatiere	1,350	[2]
CJLS	Yarmouth	1,340	100				
CFCY	Charlottetown	630	[1]	CKCH	Hull	1,240	250
CKCW	Moncton	1,220	5,000	CJEM	Edmundston	1,240	250
CKNB	Campbellton	950	1,000	CHLT	Sherbrooke	900	1,000
CKTS	Sherbrooke	1,240	250	CKVD	Val d'Or	1,230	100
CFCF	Montreal	600	500	CHAD	Amos	1,340	100
CKCO	Ottawa	1,310	1,000	CKRN	Rouyn	1,400	250

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[1] 5,000 watts during daytime; 1,000 watts at night.

[2] 1,000 watts during daytime; 250 watts at night.

CBC International Service (Short-Wave).—Canada's international short-wave broadcasting facilities (1947) employ ten languages: English, French, Czech, Dutch, German, Danish, Norwegian, Swedish, Spanish and Portuguese, in regular transmissions to Europe, the West Indies, Central and South America. Plans for the year include the inauguration of transmissions to Australia, New Zealand and South Africa, expansion of the services to South America and the Scandinavian countries and the inauguration of transmission to Belgium in French and Flemish.

The CBC International Service transmitters are located on reclaimed marshland near Sackville, N.B. Linked by land-line with the studios and program headquarters in Montreal, the two 50,000-watt transmitters used by the CBC International

Service can operate in any of the international short-wave bands. The frequencies used depend on climatic conditions, the geographical area served, the season of the year and the time of day.

The service was opened officially Feb. 25, 1945. During the first two years of operation more than 20,000 letters were received from listeners in all parts of the world, testifying to the strength with which Canadian short-wave programs are received and to the interest in Canada which they either arouse or help to satisfy. Listeners in Europe report constantly that CBC International Service programs are heard more clearly and loudly than any other broadcasts from the Western Hemisphere.

Listeners receive, upon request, free illustrated monthly schedules giving details of programs, frequencies and transmission times, as well as photographs and general information about Canada. Reception reports from listeners are also verified and inquiries on trade conditions, social, scientific and education matters are given attention.

The service has provided short-wave listeners abroad with comprehensive day-to-day reports and actuality broadcasts from all major international conferences held in North America since the end of the War in 1945. Supplementing the regular programs in ten languages, special events broadcasts of all kinds are arranged whenever necessary to give CBC listeners in other lands full reports on activities in Canada that are of particular interest to them. Visitors from abroad frequently use the CBC short-wave service to report back to their home countries on their impressions of Canada.

The CBC International Service short-wave transmitters at Sackville, N.B., were completed by the Corporation for the Canadian Government.

Domestic Program Service and Development.—During the fiscal year ended Mar. 31, 1946, 55,934 programs representing 17,062:25 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours, 81·2 p.c. were devoted to non-commercial and public service programs, and the remaining 18·8 p.c. to commercial presentations. The Trans-Canada network, operating 16 hours a day, released 64·4 p.c. of the network broadcasting hours. · The Dominion network, operating at present only in the evening hours, released 8·2 p.c. of the network hours. French network operations, operating 16 hours a day, accounted for 27·2 p.c. of all network hours of broadcasting.

The CBC originated and produced 78·7 p.c. of its network broadcasts. Of the remainder, 2·6 p.c. came from private stations, 15·3 p.c. were exchange programs from the United States, and 3·4 p.c. were exchange programs from the BBC. Various categories of light music made up the greatest number of broadcast hours, followed in order by news, drama, variety, classical music, talks, agriculture programs, educational broadcasts, religious periods, and programs devoted to the interests of women, sport fans, and children. Table 9 shows the proportion of total time devoted to sustaining as compared with commercial programs, and analyses those made up of music as compared with the spoken word.

9.—Classification of CBC Programs, Year Ended Mar. 31, 1946

NOTE.—Dashes in this table indicate that no programs were reported under these particular sub-items.

Class of Program	Sustaining			Commercial		
	Programs	Time	P.C. of Total Hours	Programs	Time	P.C. of Total Hours
	No.	hrs. mins.		No.	hrs. mins.	
Musical						
Opera	131	86:00	0·6	13	44:05	1·5
Symphony	378	366:40	2·6	23	19:00	0·6
Sacred	142	40:00	0·3	14	4:00	0·1
Classical	1,729	650:05	4·7	51	25:30	0·8
Semi-classical	3,415	1,204:20	8·7	89	44:30	1·3
Variety	1,428	590:55	4·3	1,704	739:40	23·1
Light	9,692	2,825:55	20·4	678	251:55	7·8
Dance	4,434	1,595:05	11·5	108	42:30	1·3
Old-time	537	138:20	1·0	70	35:00	1·1
Band	358	165:45	1·2	-	-	-
Totals, Musical	**22,244**	**7,663:05**	**55·3**	**2,750**	**1,206:10**	**37·6**
Spoken Word						
Drama	1,412	583:05	4·2	5,662	1,594:40	49·8
Prose and poetry	52	18:50	0·1	-	-	-
Talks—informative	3,187	838:00	6·0	486	172:00	5·4
Educational	1,161	479:55	3·5	-	-	-
News commentary	745	170:20	1·2	-	-	-
News events	66	24:35	0·2	4	4:00	0·1
News résumés	11,921	2,242:30	16·1	-	-	-
Agriculture	2,072	785:30	5·7	-	-	-
Stock quotations	412	103:45	0·7	-	-	-
Sports events	120	63:55	0·5	121	157:45	4·9
Sports résumés	286	63:40	0·5	23	5:45	0·2
Women's	1,326	273:05	2·0	255	63:45	2·0
Children's	340	134:30	1·0	-	-	-
Religious	1,289	413:35	3·0	-	-	-
Totals, Spoken Word	**24,389**	**6,195:15**	**44·7**	**6,551**	**1,997:55**	**62·4**
Grand Totals	**46,633**	**13,858:20**	**100·0**	**9,301**	**3,204:05**	**100·0**
Live talent	30,910	8,851:15	63·9	7,951	2,818:35	87·9
Recorded	13,527	4,271:15	30·8	-	-	-
Transcribed	2,196	735:50	5·3	-	-	-
Delayed	-	-	-	1,350	385:30	12·1

Subsection 3.—Finances of the CBC

Revenue from the sale of receiving and broadcasting licences increased each year until 1943-44, but has since shown a decrease. It has been recognized that there is a limit to the amount of revenue to be received from licence fees, although an increase over the 1945-46 figure may be shown as post-war radio receivers become more readily available to the public. Commercial revenues showed an increase over the preceding year, but the drop in licence revenue and an increase in overhead expenditures resulted in a deficit.

The balance sheet of the Corporation, as at Mar. 31, 1946, showed an operating deficit of $78,426 for the fiscal year, before providing allowance for depreciation and obsolescence. Since depreciation rates have been generous in the past, no further allowance has been provided for under expenditures for the 1945-46 fiscal year. During the year the fixed assets of the Corporation were increased by approximately $219,000, the major project being the completion of the National

Program Administration Building and Studios at 354 Jarvis Street, Toronto, Ont. Improvements to leased properties amounted to approximately $35,000, the main items being improvements to studios and offices in Halifax, Quebec City, Montreal and Ottawa.

Operating costs in percentage terms for the past three years were:—

Item	*1943-44*	*1944-45*	*1945-46*
	p.c.	p.c.	p.c.
General and administrative	4·10	4·17	5·18
Operations	18·50	20·40	21·10
Programs	56·18	54·24	56·06
Station network	16·90	17·02	17·66
Depreciation	4·32	4·17	—
Interest on loans	—	—	—
	100·00	100·00	100·00

10.—Income and Expenditures of the CBC, Years Ended Mar. 31, 1944-46

Item	1944		1945		1946	
Income	$	p.c.	$	p.c.	$	p.c.
Licence fees	3,787,886	72·39	3,783,453	68·81	3,773,285	61·53
Commercial	1,421,906	27·18	1,639,160	29·81	1,683,838	27·47
Miscellaneous	22,249	0·43	75,785	1·38	68,441	1·11
International short-wave service	-	-	-	-	606,700	9·89
Totals, Net Income	**5,232,041**	**100·00**	**5,498,398**	**100·00**	**6,132,263**	**100·00**
Expenditures						
Programs	2,713,977	52·77	2,824,188	50·69	2,939,376	47·32
Station network	849,504	16·52	1,114,153	20·00	971,441	15·65
Engineering	930,249	18·09	929,819	16·69	1,160,675	18·69
General and administration	206,177	4·01	227,741	4·09	285,302	4·60
Press and information	109,172	2·12	138,241	2·48	145,184	2·34
Commercial division	116,562	2·27	109,344	1·96	130,903	2·10
Depreciation	217,224	4·22	227,659	4·09	-	-
International short-wave service	-	-	-	-	577,809	9·30
Totals, Expenditures	**5,142,865**	**100·00**	**5,571,145**	**100·00**	**6,210,689**	**100·00**
Operating surplus	89,176	-	-	-	-	-
Operating deficits	-	-	72,747	-	78,426	-

PART VIII.—THE POST OFFICE

For Departmental administration Canada is divided into fifteen postal districts each in charge of a District Director, Postal Service. The territory thus served is more extensive in area than that of any other country excepting the U.S.S.R. or the United States: because of the relatively small population compared with the vast area served, the problems are intensified. Canada's railway mail service is one of the most extensive in the world; the rural mail delivery service operates over 4,000 routes and the air-mail system supplies a widely scattered population with speedy and efficient postal service.

A brief account of the development of postal services in Canada is given at pp. 789-790 of the 1934-35 Year Book. The wartime growth and accomplishments of the Post Office are outlined at pp. 721-724 of the 1946 Year Book.

Many facilities and services, temporarily suspended during the war years, were restored during 1946. Mail services, parcel post and money-order services were resumed to many countries.

Air-Mail.—The air-mail service was a development of the war years and, at first, was based on heavy mailings to and from members of the Armed Services at home and abroad. This service has now become readjusted to post-war traffic levels and its present position is shown in the following figures showing weight of mail conveyed by air:—

Calendar Year	*T.C.A.*	*All Air Services*	*Calendar Year*	*T.C.A.*	*All Air Services*
	lb.	lb.		lb.	lb.
1939	392,931	1,994,643	1943	3,726,607	6,877,338
1940	634,444	2,739,473	1944	3,739,529	8,013,593
1941	1,329,232	3,350,431	1945	3,429,233	8,158,876
1942	2,308,812	4,793,491	1946	2,325,978	5,589,366

A fourth transcontinental daily air-mail flight was established over the T.C.A. in March, 1946. Domestic air-mail schedules were revised and frequencies increased over some sections. A new air-mail service was inaugurated late in 1946 linking Moncton, N.B., Kentville, Yarmouth and Halifax, N.S.

During 1946, a number of new air-mail services to the United States were inaugurated including services between Ottawa and Washington; Montreal and Washington; Ottawa and New York; Montreal–Toronto–Chicago; Toronto–London and Cleveland; Fort William and Duluth and Victoria and Seattle. Daily flights now take place in both directions between Dorval (Montreal), Que., and London, England, and air-mail services with many other overseas countries have been resumed. A reduction in air-mail postage rates from Canada to numerous countries in every quarter of the globe became effective late in 1946 when the unit of weight was established at one-quarter ounce instead of one-half ounce.

Section 1.—Post Office Statistics

Gross postal revenue of the Post Office Department reached the highest point on record during the year ended Mar. 31, 1946, amounting to $83,763,007. Despite the fact that Armed Forces mails had subsided, the drop in volume was more than counterbalanced by the development of domestic postal business generally, and by the increases in commercial and relief parcels to Europe.

1.—Post Offices in Operation, by Provinces, as at Mar. 31, 1941-46

Province or Territory	1941	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.	No.
Prince Edward Island	115	115	115	114	114	115
Nova Scotia	1,508	1,498	1,487	1,475	1,475	1,465
New Brunswick	1,020	1,007	1,001	996	991	983
Quebec	2,627	2,612	2,604	2,601	2,594	2,586
Ontario	2,639	2,618	2,597	2,579	2,566	2,557
Manitoba	810	802	799	797	795	794
Saskatchewan	1,528	1,505	1,499	1,484	1,466	1,443
Alberta	1,262	1,251	1,244	1,229	1,216	1,209
British Columbia	932	935	928	921	914	914
Yukon	15	16	16	15	16	16
Northwest Territories	21	22	23	23	22	23
Canada	**12,477**	**12,381**	**12,313**	**12,234**	**12,169**	**12,105**

2.—Gross Postal Revenues of Offices Collecting Upwards of $10,000 for either of the Years Ended Mar. 31, 1945 and 1946

NOTE.—The post offices shown in this table do not include those established at military camps. Money order and postal note commissions are not included in the gross postal revenue. Provincial totals of postal revenues include post offices not separately listed.

Province and Post Office	1945	1946
	$	$
P. E. Island		
Charlottetown	151,301	150,676
Summerside	50,107	44,504
Totals, P.E. Island	**396,602**	**342,076**
Nova Scotia		
Amherst	75,258	63,635
Annapolis Royal	14,614	13,911
Antigonish	35,747	36,738
Armdale	16,334	13,748
Bedford	11,117	9,281
Berwick	11,305	9,724
Bridgetown	16,508	14,823
Bridgewater	33,451	31,438
Digby	29,654	26,179
Glace Bay	65,984	52,632
Halifax	1,327,791	1,333,130
Inverness	10,046	9,244
Kentville	51,125	46,524
Kingston	15,466	8,033
Liverpool	30,748	28,405
Lunenburg	24,688	24,412
Middleton	20,123	17,821
New Glasgow	81,822	72,961
New Waterford	27,252	23,298
North Sydney	36,275	31,816
Parrsboro	11,584	10,839
Pictou	34,172	27,910
Shelburne	27,515	21,133
Springhill	28,079	23,781
Stellarton	25,800	22,681
Sydney	195,444	171,315
Sydney Mines	26,791	19,763
Trenton	10,496	8,221
Truro	119,642	108,482
Westville	15,575	12,823
Windsor	38,186	33,147
Wolfville	24,151	23,438
Yarmouth	65,371	56,009
Totals, Nova Scotia	**3,848,333**	**3,433,009**
New Brunswick		
Bathurst	30,114	29,364
Campbellton	47,354	46,276
Chatham	30,010	23,447
Dalhousie	17,095	16,353
Edmundston	32,702	33,798
Fairville	18,992	18,707
Fredericton	155,248	178,928
Grand Falls	14,715	14,877
Hartland	11,172	9,960
McAdam	12,030	10,470
Moncton	718,952	815,456
Newcastle	29,507	27,668
Saint John	545,021	535,194
St. Andrews	13,406	13,292
St. George	10,530	9,106
St. Stephen	37,042	33,024
Sackville	35,723	34,389
Shediac	11,375	10,253
Sussex	33,459	29,161
Woodstock	35,615	33,525
Totals, New Brunswick	**2,573,308**	**2,549,799**

Province and Post Office	1945	1946
	$	$
Quebec		
Amos	21,830	25,446
Amqui	10,418	11,406
Arvida	33,250	26,605
Asbestos	17,244	17,918
Bagotville	10,196	8,561
Baie Comeau	13,631	17,348
Basilique Ste. Anne	33,436	35,209
Beauceville East	9,949	11,428
Beauharnois	16,388	18,041
Bedford	11,026	11,309
Berthierville	11,639	11,945
Brownsburg	13,889	11,786
Buckingham	17,273	17,410
Cap-de- la-Madeleine	22,272	21,626
Chicoutimi	82,100	87,473
Coaticook	19,939	19,968
Cowansville	16,569	16,416
Dolbeau	13,488	16,427
Drummondville	49,563	53,825
East Angus	11,796	11,977
Farnham	30,616	26,468
Gardenvale	41,768	38,602
Gaspe	18,032	15,203
Gatineau	10,978	11,751
Granby	57,513	64,451
Grand'Mère	21,811	21,997
Hull	84,448	84,384
Huntingdon	20,375	19,460
Iberville	11,025	13,023
Joliette	42,198	47,040
Jonquière	31,659	30,859
Kenogami	19,029	18,851
Lachute	19,208	19,683
Lachute Mills	9,383	10,311
Lac Mégantic	18,578	19,871
La Malbaie	10,182	11,524
Laprairie	9,867	10,077
La Sarre	13,406	15,026
La Tuque	26,721	26,447
Lennoxville	19,873	19,586
Lévis	64,353	92,764
Louiseville	10,795	11,727
Magog	24,883	25,399
Malartic	12,840	15,709
Maniwaki	13,647	14,815
Matane	25,199	26,785
Mont Joli	19,078	21,254
Mont Laurier	10,944	12,306
Montmagny	21,602	20,590
Montreal	9,664,055	10,321,318
Nicolet	14,177	15,828
Noranda	32,104	37,431
Plessisville	13,698	15,739
Pointe-au-Pic	9,117	11,339
Quebec	1,237,966	1,512,506
Richmond	16,939	16,200
Rimouski	50,212	53,958
Rivière-du-Loup	13,046	11,382
Rivière-du-Loup Station	12,465	13,733
Roberval	17,124	19,379
Rock Island	26,565	32,655
Rouyn	36,356	41,862
Ste. Agathe-des-Monts	25,847	29,443
Ste. Anne-de-Bellevue	17,073	15,898
Ste. Anne-de-la-Pocatière	10,973	11,925
St. Georges-de-Beauce	14,278	16,855
St. Hyacinthe	82,499	81,902
St. Jean	79,863	67,240
St. Jérôme	43,837	44,894
St. Joseph-d'Alma	14,995	15,669

2.—Gross Postal Revenues of Offices Collecting Upwards of $10,000 for either of the Years Ended Mar. 31, 1945 and 1946—continued

Province and Post Office	1945	1946
	$	$
Quebec—concluded		
St. Joseph-de-Beauce	9,754	10,805
Ste. Marie-de-Beauce	11,192	11,064
Ste. Thérèse-de-Blainville	17,931	20,399
Shawinigan Falls	63,913	62,975
Sherbrooke	216,866	224,259
Sorel	43,648	42,816
Thetford Mines	36,711	39,187
Three Rivers	154,587	156,214
Timiskaming Station	12,351	13,391
Trois-Pistoles	9,963	11,328
Val d'Or	23,611	33,591
Valleyfield	41,746	42,622
Victoriaville	44,777	45,110
Waterloo	16,472	16,337
Totals, Quebec	**15,705,738**	**16,803,399**
Ontario		
Acton	16,863	16,063
Ajax	22,245	11,285
Alexandria	13,622	12,883
Alliston	12,368	11,292
Almonte	14,897	13,376
Amherstburg	21,135	21,474
Arnprior	27,521	24,994
Aurora	23,068	21,430
Aylmer West	23,135	24,117
Barrie	87,720	81,231
Batawa	8,296	16,496
Beamsville	12,191	11,600
Belleville	137,467	133,598
Blenheim	17,265	17,902
Blind River	11,881	12,599
Bowmanville	35,652	26,436
Bracebridge	26,856	26,379
Bradford	8,535	10,117
Brampton	63,168	55,535
Brantford	288,120	269,360
Brighton	11,337	10,443
Brockville	104,942	97,440
Burlington	45,477	45,069
Caledonia	11,238	10,091
Campbellford	19,270	19,017
Cardinal	12,326	11,498
Carleton Place	28,781	26,052
Chalk River	4,676	11,104
Chapleau	13,183	13,060
Chatham	153,513	156,923
Chesley	14,442	13,351
Clinton	21,214	17,794
Cobalt	14,624	14,713
Cobourg	44,101	43,102
Cochrane	22,767	24,248
Collingwood	34,799	34,226
Copper Cliff	17,867	18,979
Cornwall	113,796	104,032
Crystal Beach	10,601	10,560
Delhi	15,442	18,644
Dresden	12,037	11,692
Dryden	18,414	17,313
Dundas	37,567	37,716
Dunnville	35,630	33,895
Durham	11,428	10,289
Elmira	14,198	13,664
Englehart	10,292	9,795
Espanola	7,448	11,268
Essex	17,532	17,198
Exeter	15,068	13,696
Fenelon Falls	10,029	9,777
Fergus	32,329	33,884
Ontario—continued		
Forest	23,973	19,160
Fort Erie	19,847	19,244
Fort Erie North	43,865	37,915
Fort Frances	41,858	39,868
Fort William	209,059	198,130
Galt	131,117	119,769
Gananoque	35,443	33,400
Georgetown	39,980	47,173
Geraldton	15,393	18,262
Goderich	36,553	33,585
Gravenhurst	25,437	23,596
Grimsby	21,480	21,280
Guelph	184,879	192,233
Hagersville	15,414	14,334
Haileybury	15,637	16,486
Hamilton	1,405,080	1,383,276
Hanover	23,966	22,527
Harriston	12,275	11,695
Harrow	12,330	11,984
Hawkesbury	19,147	18,769
Hearst	10,328	15,567
Hespeler	22,160	19,891
Humberstone	11,182	10,375
Huntsville	32,631	33,945
Ingersoll	43,270	40,084
Iroquois Falls	10,441	10,326
Islington	16,810	17,474
Kapuskasing	23,894	26,574
Kemptville	11,371	11,114
Kenora	52,984	51,320
Kincardine	20,400	18,818
Kingston	305,074	297,125
Kingsville	22,350	23,000
Kirkland Lake	72,665	83,029
Kitchener	310,082	277,943
Lakefield	10,085	9,459
Lansing	11,288	11,625
Leamington	46,303	48,181
Lindsay	61,075	59,127
Listowel	23,558	20,260
London	883,344	889,472
Malton	19,397	7,868
Meaford	21,546	19,468
Merritton	17,271	15,283
Midland	44,489	42,204
Milton West	18,073	17,173
Mitchell	12,137	10,870
Morrisburg	12,766	12,687
Mount Forest	13,725	13,538
Napanee	32,641	31,336
New Liskeard	41,982	45,367
Newmarket	39,336	36,322
Niagara Falls	215,842	221,825
Niagara-on-the-Lake	14,545	16,855
Nipigon	7,989	10,884
North Bay	120,486	122,103
Norwich	11,513	10,886
Oakville	42,990	45,043
Orangeville	22,344	20,437
Orillia	96,863	85,785
Oshawa	213,475	215,537
Ottawa	1,805,139	1,801,193
Owen Sound	102,533	96,508
Paris	31,872	28,673
Parry Sound	36,945	34,800
Pembroke	71,547	66,926
Penetanguishene	18,059	16,020
Perth	41,816	41,032
Peterborough	225,736	222,864
Petrolia	19,541	18,485
Picton	37,129	34,478
Port Arthur	151,104	172,781
Port Colborne	43,909	43,091
Port Credit	21,411	22,029

2.—Gross Postal Revenues of Offices Collecting Upwards of $10,000 for either of the Years Ended Mar. 31, 1945 and 1946—continued

Province and Post Office	1945	1946
	$	$
Ontario—concluded		
Port Dalhousie	11,288	11,370
Port Dover	14,594	12,812
Port Elgin	12,412	12,310
Port Hope	41,992	41,769
Prescott	25,054	24,067
Preston	49,938	45,522
Renfrew	45,825	43,005
Richmond Hill	11,530	11,333
Ridgetown	14,807	14,124
St. Catharines	251,215	247,334
St. Mary's	26,804	24,743
St. Thomas	121,678	111,201
Sarnia	149,237	147,800
Sault Ste. Marie	146,178	147,215
Schumacher	13,387	17,826
Seaforth	15,399	14,663
Simcoe	75,372	72,826
Sioux Lookout	16,836	17,903
Smiths Falls	47,271	42,784
Southampton	10,359	10,122
South Porcupine	19,391	25,931
Stratford	115,830	108,936
Strathroy	22,471	22,341
Sturgeon Falls	16,125	15,598
Sudbury	173,799	185,246
Thorold	31,746	28,551
Tilbury	13,721	13,235
Tillsonburg	36,424	36,865
Timmins	99,360	113,946
Toronto	12,290,055	13,607,833
Trenton	52,038	54,344
Tweed	10,763	11,078
Uxbridge	10,956	10,684
Walkerton	20,748	20,064
Wallaceburg	35,598	37,857
Waterford	11,313	10,767
Waterloo	95,247	110,648
Watford	10,492	9,316
Welland	108,863	115,839
Westboro	20,312	19,457
Whitby	29,800	27,282
Wiarton	14,122	13,251
Willowdale	10,695	12,685
Windsor	814,727	805,831
Wingham	19,497	18,441
Woodstock	120,151	110,038
Totals, Ontario	**28,496,011**	**29,205,435**
Manitoba		
Boissevain	10,340	9,559
Brandon	161,801	164,852
Carman	14,583	13,881
Carberry	10,091	8,867
Dauphin	50,429	43,902
Flin Flon	32,667	32,512
Gilbert Plains	10,507	9,097
Gimli	10,763	9,009
Killarney	10,681	9,741
Minnedosa	17,105	15,950
Morden	12,864	12,417
Neepawa	26,378	23,480
Norwood Grove	21,893	20,558
Portage la Prairie	76,663	63,743
Roblin	11,533	10,329
Russell	12,142	10,970
St. Boniface	36,505	40,352
Selkirk	21,621	19,886
Souris	16,770	15,844
Swan River	18,012	18,032
The Pas	22,987	22,687
Manitoba—concluded		
Transcona	17,602	15,631
Virden	20,897	16,245
Wawanesa	13,350	17,976
Winnipeg	4,564,578	4,717,490
Totals, Manitoba	**6,194,480**	**6,204,014**
Saskatchewan		
Assiniboia	23,350	19,776
Battleford	12,321	11,725
Biggar	18,652	17,246
Broadview	10,922	9,972
Canora	14,560	13,754
Davidson	14,092	8,579
Estevan	33,364	31,181
Gravelbourg	12,134	11,647
Gull Lake	10,281	9,643
Humboldt	21,817	22,191
Indian Head	12,490	11,785
Kamsack	16,290	15,498
Kerrobert	10,774	10,591
Kindersley	14,236	14,403
Lloydminster	23,199	24,057
Maple Creek	20,963	22,646
Meadow Lake	11,647	11,872
Melfort	31,392	31,786
Melville	27,426	26,652
Moose Jaw	228,610	202,172
Moosomin	15,026	13,941
Nipawin	16,991	17,199
North Battleford	70,263	64,547
Prince Albert	130,393	120,701
Regina	1,402,021	1,479,166
Rosetown	20,012	18,232
Rosthern	10,078	10,265
Saskatoon	546,120	552,195
Shaunavon	17,625	18,290
Swift Current	71,510	68,281
Tisdale	24,657	24,560
Unity	11,510	11,261
Wadena	10,701	10,326
Watrous	11,356	10,694
Weyburn	48,477	42,691
Wilkie	13,835	13,553
Wynyard	11,940	11,323
Yorkton	66,951	71,792
Totals, Saskatchewan	**4,939,880**	**4,811,232**
Alberta		
Banff	28,988	30,483
Blairmore	12,515	13,252
Brooks	13,298	14,408
Calgary	1,182,743	1,182,067
Camrose	34,534	31,508
Cardston	16,296	16,237
Claresholm	16,162	14,534
Coleman	12,350	13,155
Didsbury	11,637	11,418
Drumheller	35,608	34,817
Edmonton	1,244,902	1,293,733
Edson	13,382	14,401
Grande Prairie	33,843	33,098
Hanna	16,509	15,762
High River	21,684	18,203
Innisfail	17,332	16,855
Jasper	15,912	14,734
Lacombe	22,233	22,324
Lethbridge	186,471	179,850
MacLeod	19,432	14,990

2.—Gross Postal Revenues of Offices Collecting Upwards of $10,000 for either of the Years Ended Mar. 31, 1945 and 1946—concluded

Province and Post Office	1945	1946
Alberta—concluded	$	$
Medicine Hat	117,020	96,172
Olds	19,800	19,660
Peace River	16,270	17,900
Pincher Creek	12,449	12,682
Ponoka	19,609	19,210
Raymond	10,677	10,937
Red Deer	69,082	55,635
Rocky Mountain House	10,170	10,506
St. Paul	12,543	12,389
Stettler	17,705	17,360
Taber	14,335	15,540
Three Hills	13,988	15,990
Vegreville	15,960	16,075
Vermilion	20,085	19,902
Viking	9,773	10,149
Vulcan	12,630	10,811
Wainwright	23,751	17,024
Westlock	12,478	12,286
Wetaskiwin	32,453	31,462
Totals, Alberta	**4,751,094**	**4,631,108**
British Columbia		
Abbotsford	25,473	25,544
Alberni	12,470	13,582
Armstrong	14,660	14,705
Chilliwack	62,099	61,073
Cloverdale	19,143	21,215
Courtenay	37,424	32,618
Cranbrook	29,912	31,562
Creston	16,434	17,947
Cumberland	11,266	11,111
Dawson Creek	31,945	28,469
Duncan	44,606	48,008
Eburne	9,848	11,427
Fernie	18,973	19,498
Fort St. John	15,811	12,434
Grand Forks	12,195	13,195
Haney	13,739	16,306
Kamloops	75,703	83,358
Kelowna	75,682	81,220
Kimberley	25,298	27,755
Ladner	25,225	16,065
Ladysmith	12,393	13,390
Langley Prairie	18,425	21,014
Mission City	25,143	27,623
Nanaimo	84,754	83,526
Nelson	72,834	77,758
New Westminster	274,829	287,232
Ocean Falls	14,603	13,031
Oliver	15,341	16,971
British Columbia—concl.	$	$
Penticton	56,313	64,445
Port Alberni	38,594	41,234
Powell River	23,620	25,956
Prince George	43,908	40,499
Prince Rupert	95,652	83,712
Princeton	12,154	13,744
Quesnel	9,734	10,262
Revelstoke	21,150	21,322
Rossland	18,546	18,521
Salmon Arm	18,479	19,909
Sardis	12,672	11,360
Sidney	29,288	16,273
Slocan	9,607	10,817
Smithers	11,742	11,728
Terrace	12,073	6,973
Trail	75,705	74,693
Vancouver	3,347,825	3,707,584
Vernon	77,360	81,071
Victoria	759,428	834,670
West Summerland	10,598	11,513
White Rock	18,423	19,242
Williams Lake	9,856	10,635
Totals, British Columbia	**6,943,273**	**7,357,845**
Yukon		
White Horse	66,681	30,148
Totals, Yukon	**87,302**	**49,100**
Northwest Territories		
Yellowknife	7,575	15,587
Totals, N.W.T.	**28,947**	**27,171**
Summary above Offices		
Prince Edward Island	396,602	342,076
Nova Scotia	3,848,333	3,433,009
New Brunswick	2,573,308	2,549,799
Quebec	15,705,738	16,803,399
Ontario	28,406,011	29,205,435
Manitoba	6,194,480	6,204,014
Saskatchewan	4,939,880	4,811,232
Alberta	4,751,094	4,631,108
British Columbia	6,943,273	7,357,845
Yukon and N.W.T.	116,249	76,271
Totals	**73,874,968**	**75,414,188**
P.C. of All Postal Revenue	92·9	90·0

3.—Revenues and Expenditures of the Post Office Department, Years Ended Mar. 31, 1927-46

NOTE.—For the years 1867-1910, see 1911 Year Book, p. 288, and for 1911-26, p. 665 of the 1942 Year Book.

Year	Net Revenue[1]	Ex-penditures	Surplus (+) Deficit (−)
	$	$	$
1927	29,378,697	31,007,698	−1,629,001
1928	30,529,155	32,379,196	−1,850,041
1929	31,170,904	33,483,058	−2,312,154
1930	32,969,293	35,036,629	−2,067,336
1931	30,416,107	36,292,604	−5,876,497
1932	32,476,604	34,448,986	−1,972,382
1933	30,825,155	30,167,827	+657,328
1934	30,367,465	29,202,730	+1,164,735
1935	31,248,324	28,974,316	+2,274,008
1936	32,507,888	30,100,102	+2,407,786
1937	34,274,552	30,538,575	+3,735,977
1938	35,546,161	32,296,805	+3,249,356
1939	35,288,220	35,456,181	−167,961
1940	36,729,105	36,725,870	+3,235
1941	40,383,366	38,699,674	+1,683,692
1942	45,993,872	41,501,869	+4,492,003
1943	48,868,762	44,741,987	+4,126,775
1944	61,070,919	48,485,009	+12,585,910
1945	66,071,815	54,629,281	+11,442,534
1946	68,635,559	57,729,646	+10,905,913

[1] Exclusive of commissions and allowances to postmasters and some other smaller items. The gross revenue in the fiscal year 1938 was $42,998,349; in 1939, $42,896,178; in 1940, $44,208,369; in 1941, $48,143,410; in 1942, $55,477,159; in 1943, $59,175,138; in 1944, $73,004,339; in 1945, $79,533,903; and in 1946, $83,763,007.

Postage.—The net revenue receipts shown in Table 3 are received mainly in the form of postage. The gross value of the postage stamps, post cards, etc., sold during each of the latest nine fiscal years, was: $28,808,513 in 1938, $28,836,457 in 1939, $29,530,247 in 1940, $31,425,593 in 1941, $35,716,908 in 1942, $38,959,795 in 1943, $50,062,214 in 1944, $53,250,630 in 1945 and $52,135,846 in 1946. Receipts from postage paid in cash were as follows: $10,865,895 in 1938, $11,065,527 in 1939, $11,792,311 in 1940, $13,459,526 in 1941, $15,777,816 in 1942, $16,057,366 in 1943, $18,728,050 in 1944, $20,498,106 in 1945, and $23,252,162 in 1946.

Section 2.—Auxiliary Postal Services

The auxiliary postal services include the issuing of money orders (including postal notes) and the facilities offered by the Post Office Savings Bank. In 1868, there were 515 money-order offices in operation, issuing orders to an amount of $3,342,574; the following tables show the magnitude of operations in recent years. Statistical tables showing deposits with the Government Savings Banks and the business of the Post Office Savings Bank are included in the chapter on Currency and Banking (Chapter XXVI).

4.—Operations of the Money-Order System, Years Ended Mar. 31, 1937-46

NOTE.—For figures for 1868-1900, see the 1911 Year Book, p. 289; for 1901-31, the 1932 edition, p. 622; and for 1932-36, p. 666 of the 1942 edition.

Year	Money-Order Offices in Canada	Orders Issued in Canada	Value of Orders Issued in Canada	Value Payable in—		Value of Orders Issued in Other Countries, Payable in Canada
				Canada	Other Countries	
	No.	No.	$	$	$	$
1937	6,737	13,746,743	133,155,222	124,479,322	8,675,900	7,280,169
1938	6,840	14,554,010	144,445,972	134,262,900	10,183,072	7,590,616
1939	6,976	14,522,060	145,204,787	135,417,731	9,787,056	6,948,186
1940	7,103	15,161,896	156,340,540	148,560,567	7,779,973	5,578,250
1941	7,117	16,119,586	173,565,550	168,548,852	5,016,698	5,700,036
1942	7,198	17,465,646	205,675,482	202,102,135	3,573,346	5,913,324
1943	7,306	18,627,228	236,925,919	233,004,136	3,921,784	6,887,250
1944	7,362	19,554,760	262,297,331	256,630,949	5,666,382	8,440,436
1945	7,406	20,742,643	281,890,291	276,704,712	5,185,579	8,467,849
1946	7,377	22,031,756	290,933,503	285,574,174	5,359,329	8,732,635

5.—Money-Order Statistics, by Provinces, and Total Postal Notes, Years Ended Mar. 31, 1942-46

Item and Province	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.
Money-Order Offices in—					
Prince Edward Island	72	74	74	77	75
Nova Scotia	478	486	499	503	492
New Brunswick	342	349	351	352	345
Quebec	1,604	1,633	1,645	1,673	1,693
Ontario	1,780	1,794	1,795	1,787	1,771
Manitoba	514	516	518	521	512
Saskatchewan	1,044	1,055	1,068	1,076	1,085
Alberta	774	785	795	783	783
British Columbia	583	607	611	627	615
Yukon	7	7	6	7	6
Totals	**7,198**	**7,306**	**7,362**	**7,406**	**7,377**

5.—Money-Order Statistics, by Provinces, and Total Postal Notes, Years Ended Mar. 31, 1942-46—concluded

Item and Province	1942	1943	1944	1945	1946
	No.	No.	No.	No.	No.
Money Orders Issued in—					
Prince Edward Island	125,405	139,090	159,009	181,925	202,585
Nova Scotia	1,191,888	1,278,479	1,429,291	1,551,930	1,579,451
New Brunswick	694,268	727,980	809,385	888,135	982,667
Quebec	3,346,840	3,692,629	3,815,931	4,094,144	4,551,564
Ontario	4,738,354	4,826,074	4,868,743	5,067,895	5,306,932
Manitoba	1,136,908	1,231,919	1,298,225	1,372,181	1,451,187
Saskatchewan	2,624,303	2,781,344	2,985,481	3,206,092	3,337,426
Alberta	1,967,042	2,054,981	2,119,608	2,225,240	2,301,525
British Columbia	1,625,726	1,877,535	2,036,047	2,118,494	2,293,385
Yukon	14,912	17,197	33,040	36,607	25,034
Totals	**17,465,646**	**18,627,228**	**19,554,760**	**20,742,643**	**22,031,756**
	$	$	$	$	$
Value of Money Orders Issued in—					
Prince Edward Island	1,322,201	1,597,579	1,890,626	2,073,992	2,210,312
Nova Scotia	13,734,519	15,684,780	18,112,995	19,979,308	20,028,800
New Brunswick	7,476,974	8,506,913	10,179,075	11,696,243	13,156,393
Quebec	36,467,530	43,609,510	45,787,824	49,444,308	55,045,230
Ontario	57,037,450	60,018,221	62,324,966	66,711,629	68,666,973
Manitoba	13,713,984	16,057,110	17,948,431	19,261,874	20,012,714
Saskatchewan	33,210,885	38,792,121	46,660,859	51,823,081	50,088,498
Alberta	23,848,183	27,568,297	30,864,317	32,006,669	31,612,167
British Columbia	18,612,801	24,721,632	27,741,154	28,133,282	29,633,771
Yukon	250,955	369,757	787,084	759,905	478,645
Totals	**205,675,482**	**236,925,920**	**262,297,331**	**281,890,291**	**290,933,503**
	No.	No.	No.	No.	No.
Money Orders Paid in—					
Prince Edward Island	63,807	73,694	73,680	74,787	75,530
Nova Scotia	853,367	917,327	1,014,245	1,103,218	1,103,849
New Brunswick	958,960	1,001,243	1,024,264	1,108,460	1,306,305
Quebec	2,711,439	3,123,472	3,333,572	3,400,610	3,618,392
Ontario	5,683,486	5,982,603	6,088,926	6,527,068	6,927,770
Manitoba	2,976,229	3,183,552	3,253,982	3,460,394	3,692,263
Saskatchewan	1,989,283	2,126,868	2,253,451	2,390,083	2,442,250
Alberta	914,275	1,011,955	1,048,646	1,069,728	1,095,306
British Columbia	1,035,268	1,143,802	1,273,078	1,341,388	1,428,945
Yukon	1,359	2,195	3,687	4,484	3,659
Totals	**17,187,473**	**18,566,711**	**19,367,531**	**20,480,220**	**21,694,269**
	$	$	$	$	$
Value of Money Orders Paid in—					
Prince Edward Island	949,263	1,176,393	1,211,019	1,230,365	1,201,480
Nova Scotia	10,404,462	11,858,340	13,453,928	14,873,539	15,012,999
New Brunswick	9,584,587	11,063,140	11,851,233	13,198,115	15,511,658
Quebec	32,413,399	39,771,766	43,104,432	45,558,238	49,464,662
Ontario	63,996,409	72,889,309	75,799,038	82,783,810	85,445,872
Manitoba	32,232,162	38,347,744	42,975,351	46,285,830	46,728,702
Saskatchewan	24,750,052	30,032,893	34,787,969	37,445,812	36,838,841
Alberta	15,431,905	18,454,368	20,157,066	20,822,987	20,480,915
British Columbia	14,449,206	17,370,568	20,787,460	22,536,366	22,928,481
Yukon	33,969	60,845	101,765	110,905	97,544
Totals	**204,245,414**	**241,025,366**	**264,229,261**	**284,845,967**	**293,711,154**
Postal Notes—					
Total notes paid ... No.	9,592,942	11,062,571	11,178,915	10,852,629	9,940,481
Total value, including postal note scrip ... $	18,360,326	22,246,021	25,593,818	27,381,373	26,840,747

PART IX.—THE PRESS

Statistics of the press as published in the Year Book have in the past been compiled from *McKim's Directory* and the tables were presented on a basis of circulation of the various types of publication by provinces down to the year 1941 and for both English-language and French-language sections of the press. *McKim's Directory* was suspended during the War and there appears to be no prospect of its reappearance in the near future. Under these circumstances, it has been decided to begin a new series of these statistics in the Year Book based on *Canadian Advertising*. Since these data are not comparable to the former series the continuity is definitely broken and it has been decided to begin the new series with the years 1945 and 1946. As opportunity permits, the figures will be worked back to 1939 in order to give better background to the data.

Full details of the circulation have not been available in all cases, however, but it is felt that a fair average of Canadian publication statistics is given in the following material.

Daily Newspapers.—Three types of daily newspapers are published in Canada, English-language, French-language and foreign-language newspapers. The number of these papers has remained about the same in 1946 as in 1945, but Table **1** shows an increase in circulation in the later year.

French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the larger of these papers have been established in the Province for over 60 years. Ten of the 11 French-language papers are published in this Province, the other being in the adjoining Province of Ontario. Over 93 p.c. of the total circulation of the English and French dailies is in the urban centres of 20,000 population or over.

Weekly Newspapers.*—The weekly newspapers have a somewhat wider circulation; only 61 p.c. of the stated circulation of weekly English-language newspapers is in cities of 20,000 population or over and about 77 p.c. of the French-language weeklies.

Canada is well served by foreign-language weekly newspapers. In 1946, these newspapers had a stated circulation of 190,500 copies among which Ukrainian papers had a circulation of 64,937 copies, German 32,165, Yiddish 28,262 and Polish 15,157 copies.

Other Publications and Periodicals.—Tables **6** and **7** give the number of publications other than newspapers published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation while those dealing with agricultural and rural topics, general magazines, dealing with household, social, fiction, etc., and religious and education papers are the most popular types.

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* Including a very few semi- and tri-weekly newspapers.

1.—Numbers and Circulations[1] of Daily and Weekly English-Language Newspapers, by Provinces, 1945 and 1946

Province	1945				1946			
	Daily		Weekly[2]		Daily		Weekly[2]	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Prince Edward Island	2	14,861	2	7,365	2	16,125	2	6,875
Nova Scotia	7	144,499	29	69,093	7	149,158	29	70,171
New Brunswick	3	54,825	23	39,540	3	58,066	23	40,325
Quebec	5	220,103	23	307,416	5	237,793	25	390,890
Ontario	34	1,167,159	245	1,173,750	34	1,224,458	247	1,316,559
Manitoba	4	141,378	64	82,556	4	138,496	63	66,269[3]
Saskatchewan	4	72,520	132	112,525	4	77,360	136	117,464
Alberta	6	125,581	83	82,763	6	135,414	83	83,098
British Columbia	11	289,994	63	129,411	11	313,038	66	139,539
Yukon and N.W.T.	Nil	–	4	2,062	Nil	–	4	2,062
Canada	**76**	**2,230,920**	**668**	**2,006,481**	**76**	**2,349,908**	**678**	**2,233,252**

[1] Not given in all cases. [2] Includes semi- and tri-weekly newspapers. [3] Circulation of one large weekly newspaper omitted.

2.—Numbers and Circulations[1] of Daily and Weekly English-Language Newspapers, in Urban Centres of 20,000 Population or Over, 1945 and 1946

Urban Centre	Census 1941		1945				1946			
	Population	Households	Daily		Weekly		Daily		Weekly	
	No.	No.	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Montreal	903,007	203,685	3	205,697	3	238,968	3	223,277	3	322,105
Toronto	667,457	175,736	3	648,095	3	788,876	3	677,106	3	923,293
Vancouver	275,353	80,826	3	234,930	Nil	–	3	255,156	1	2,550
Winnipeg	221,960	59,607	2	136,097	2	22,991	2	132,721	2	4,109
Hamilton	166,337	43,076	1	67,834	Nil	–	1	71,486	Nil	–
Ottawa	154,951	35,601	2	94,978	"	–	2	100,616	"	–
Quebec	150,757	28,170	1	5,108	"	–	1	5,206	"	–
Windsor	105,311	26,126	1	59,154	"	–	1	61,592	"	–
Edmonton	93,817	24,700	2	58,189	1	3,000	2	63,149	1	2,000
Calgary	88,904	25,387	2	54,661	Nil	–	2	58,743	Nil	–
London	78,264	21,050	1	61,099	"	–	1	64,863	"	–
Halifax	70,488	15,089	2	115,816	"	–	2	119,293	"	–
Verdun	67,349	16,184	Nil	–	2	27,995	Nil	–	2	27,436
Regina	58,245	15,390	1	36,608	1	1,550	1	38,366	1	1,947
Saint John	51,741	12,241	1	39,138	1	4,800	1	41,762	1	5,100
Victoria	44,068	13,236	2	36,282	1	22,475	2	38,700	1	23,943
Saskatoon	43,027	11,461	1	25,008	Nil	–	1	27,182	Nil	–
Three Rivers	42,007	7,688	Nil	–	1	3,810	Nil	–	1	3,810
Sherbrooke	35,965	7,770	1	9,298	1	1,420	1	9,310	1	1,420
Kitchener	35,657	9,215	1	18,247	Nil	–	1	19,180	Nil	–
Hull	32,947	6,427	Nil	–	"	–	Nil	–	"	–
Sudbury	32,203	7,685	1	–	1	1,500	1	–	1	1,500
Brantford	31,948	8,543	1	14,578	Nil	–	1	15,295	Nil	–
Fort William	30,585	6,763	1	10,656	"	–	1	10,990	"	–
St. Catharines	30,275	8,008	1	15,265	"	–	1	16,019	"	–
Kingston	30,126	7,226	1	15,222	"	–	1	16,291	"	–
Oshawa	28,813	6,837	Nil	–	1	9,007	Nil	–	1	9,923
Timmins	28,790	6,691	1	8,513	1	2,897	1	9,090	1	2,897
Sydney	28,305	5,703	1	20,792	Nil	–	1	21,558	Nil	–
Sault Ste. Marie	25,794	6,307	1	9,061	"	–	1	9,401	"	–
Peterborough	25,350	6,364	1	11,598	1	7,550	1	12,743	1	7,550
Glace Bay	25,147	4,828	1	–	Nil	–	1	–	Nil	–
Port Arthur	24,426	5,920	1	9,192	"	–	1	9,390	"	–
Guelph	23,273	5,939	1	9,490	"	–	1	10,367	"	–
Moncton	22,763	5,121	1	15,687	"	–	1	16,304	"	–
New Westminster	21,967	5,806	1	6,304	1	5,259	1	6,429	1	5,259
Moose Jaw	20,753	5,424	1	6,275	1	475	1	7,092	Nil	–
Niagara Falls	20,589	5,235	1	9,158	Nil	–	1	9,660	"	–
Shawinigan Falls	20,325	3,820	Nil	–	1	2,328	Nil	–	1	2,450
Lachine	20,051	4,258	"	–	1	6,500	"	–	1	6,500

[1] Not all given.

3.—Numbers and Circulations[1] of Daily and Weekly French-Language Newspapers by Provinces, 1945 and 1946

Province	1945				1946			
	Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Prince Edward Island	Nil	-	Nil	-	Nil	-	Nil	-
Nova Scotia	"	-	1	1,286	"	-	1	1,351
New Brunswick	"	-	2	12,680	"	-	2	13,147
Quebec	10	404,223	91	1,045,667	10	529,189	96	1,183,527
Ontario	1	22,679	2	3,650	1	23,432	2	3,760
Manitoba	Nil	-	1	8,396	Nil	-	1	8,161
Saskatchewan	"	-	1	886	"	-	1	886
Alberta	"	-	1	3,185	"	-	1	3,760
British Columbia	"	-	Nil	-	"	-	Nil	-
Totals	**11**	**426,902**	**99**	**1,075,750**	**11**	**552,621**	**104**	**1,214,592**

[1] Not given in all cases.

4.—Numbers and Circulations[1] of Daily and Weekly French-Language Newspapers in Urban Centres of 20,000 Population or Over, 1945 and 1946

Urban Centre	Census, 1941		1945				1946			
	Population	Households	Daily		Weekly		Daily		Weekly	
	No.	No.	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Montreal	903,007	203,685	5	283,099	6	766,074	5	304,256	7	842,885
Winnipeg	221,960	59,607	Nil	-	1	8,396	Nil	-	1	8,161
Ottawa	154,951	35,601	1	22,679	Nil	-	1	23,432	Nil	-
Quebec	150,757	28,170	2	177,586	1	17,500	2	189,184	1	17,500
Edmonton	93,817	24,700	Nil	-	1	3,185	Nil	-	1	3,760
Three Rivers	42,007	7,688	1	15,378	2	5,883	1	16,839	2	6,068
Sherbrooke	35,965	7,770	1	12,137	1	27,018	1	13,457	1	27,737
Hull	32,947	6,427	Nil	-	2	7,106	Nil	-	2	7,106
Sudbury	32,203	7,685	"	-	1	1,750	"	-	1	1,860
Moncton	22,763	5,121	"	-	1	9,250	"	-	1	9,717
Shawinigan Falls	20,325	3,820	"	-	5	11,397	"	-	5	11,372

[1] Not given in all cases.

5.—Numbers and Circulations[1] of Daily and Weekly Foreign-Language Newspapers, 1945 and 1946

Language	1945				1946			
	Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Bulgarian	Nil	-	1	1,000	Nil	-	1	1,000
Chinese	4	[3]	Nil	-	4	[3]	Nil	-
Finnish	Nil	-	4[2]	7,161	Nil	-	2	7,600
German	"	-	6	30,695	"	-	7	32,165
Hungarian	"	-	1	4,000	"	-	1	3,450
Icelandic	"	-	3	13,425	"	-	3	13,425
Lithuanian	"	-	1	[3]	"	-	1	[3]
Norwegian	"	-	1	6,422	"	-	1	6,422
Polish	"	-	3	14,994	"	-	3	15,157
Slovak	"	-	1	2,500	"	-	1	2,500
Swedish	"	-	3	13,099	"	-	3	13,099
Ukrainian	"	-	6	63,937	"	-	6	64,937
Yiddish	2	[3]	3	28,262	2	[3]	3	28,262
Yugoslav	Nil	-	1	2,500	Nil	-	1	2,500

[1] Not given in all cases.

[2] Includes two tri-weeklies for which no circulation is given.

[3] Circulation not available.

6.—Numbers and Circulations[1] of Publications,[2] Other Than Newspapers, by Frequency of Issue, 1945 and 1946

Year and Issue	General Magazines		Business Papers		Farm Papers		Miscellaneous[3]	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
1945								
Annually and semi-annually	1	25,000	31	98,457	Nil	-	Nil	-
Monthly	38	1,739,562	170	509,722	16	547,587	34	734,398
Bi-monthly	13	120,556	13	33,324	3	5,125	Nil	-
Semi-monthly	1	292,083	12	24,937	5	234,397	9	128,612
Weekly	8	366,806	17	50,374	10	803,044	20	354,419
Bi-weekly	2	[4]	3	9,572	1	80,826	Nil	-
All others	8	83,679	39	115,968	6	50,435	10	23,500
1946								
Annually and semi-annually	3	90,000	31	102,769	Nil	-	Nil	-
Monthly	55	2,147,897	184	612,412	18	585,655	34	565,787
Bi-monthly	12	103,086	16	57,055	3	2,900	Nil	-
Semi-monthly	2	301,703	9	18,307	6	269,758	8	126,812
Weekly	6	348,565	17	61,481	10	826,686	20	397,468
Bi-weekly	2	25,000	5	9,270	1	81,108	Nil	-
All others	8	85,780	42	113,007	5	29,748	13	50,800

[1] Not given in all cases. [2] Includes French-language publications. [3] Includes religious, political, labour, etc. [4] Circulation not available.

7.—Numbers and Circulations of Magazines and Other Publications, by Type, 1945 and 1946

Type	1945		1946	
	No.	Circulation	No.	Circulation
Arts and crafts	3	51,650	5	63,755
Agricultural and rural	42	1,733,668	41	1,791,434
Household and social	10	1,052,180	12	1,109,406
Educational	34	505,659	39	699,767
Food and clothing	11	37,011	14	43,224
Trades and industry	164	487,031	174	576,850
Insurance and finance	21	60,653	21	70,302
Medical and dental	24	66,603	26	73,856
Brotherhoods and associations	20	255,891	19	289,367
Sports and entertainment	23	385,059	27	444,488
Religious	42	830,530	41	834,128
Transportation and travel	15	102,247	20	160,059
Miscellaneous[1]	61	864,201	71	856,418
Totals	**470**	**6,432,383**	**510**	**7,013,054**

[1] Includes political, labour and others.

CHAPTER XXII.—DOMESTIC TRADE

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The diverse resources of the various parts of the country have led to a vast exchange of products and the task of providing goods and services where they are required for consumption or use by a population of 12,307,000 (1946 estimate) accounts for a greater expenditure of economic effort than that required for the prosecution of Canada's great volume of Empire and foreign trade, high though the Dominion ranks among the countries of the world in this field.

Domestic trade is broad and complicated: it encompasses all values added to commodities traded in, provincially and interprovincially, by agencies and services connected with the storage, distribution and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. Taken in a wide sense, it embraces various professional and personal services including those directed to the amusement of the people, such as theatres, sports, etc. In fact domestic trade covers a large part of those activities of the people that add to the 'form' utilities (production), dealt with in the various preceding chapters, the utilities of 'place', 'time' and 'possession', including personal and professional services. However, not all phases of this broad field are covered here, the arrangement of material in a volume such as the Year Book is governed by the necessity of interpretation from various angles and cross reference to other chapters is a more convenient way of dealing with certain subjects. The Index will be found useful in this respect.

PART I.—GOVERNMENT AIDS TO AND CONTROL OF DOMESTIC TRADE

Section 1.—Transition Controls Affecting Distribution and Trade, 1946-47*

Shortages of various goods persisted through 1946. Though domestic production showed considerable improvement and toward the end of the year was expanding rapidly, supplies of many goods had not yet overtaken the heavy demand. Acute world-wide shortages of foodstuffs and materials both sustained the external demand for a number of basic Canadian products at extraordinarily high levels and restricted the supplies available to Canada from other countries of such important commodities as sugar, vegetable oils, tin, and cotton yarns and fabrics.

The rationing of meat, butter and sugar was maintained and the directives to manufacturers of essential garments were continued in 1946. In the case of farm machinery, lumber, base metals, certain pulp and paper products and other goods, export controls were employed to ensure supplies for domestic requirements at ceiling prices in the face of the large demand and higher prices prevailing in external markets. Some metals and various pulp and paper products were also subject to controls regulating their domestic distribution. A few controls respecting the distribution of food were discontinued during the year and the controls over textiles and certain other products were somewhat relaxed. In January, 1947, the consumer credit regulations which had been imposed in October, 1941, were revoked.

Export Controls.—The need for export controls arises from the fact that, owing to the success of the stabilization program, the Canadian price level is substantially below that of most countries. This creates a heavy potential drain on domestic supplies, particularly of certain essential raw materials and goods. By means of export controls, it is possible to protect domestic requirements and at the same time make provision for limited shipments to traditional export markets. The original extensive scope of these controls has been considerably reduced in the past few years, though the restrictions continue to apply to a number of important items including certain foods, feed grains, lumber, metals, pulp and paper products, farm machinery and automobiles.

Export controls are imposed by the Department of Trade and Commerce at the request of and in collaboration with the Wartime Prices and Trade Board. The type of control depends upon the supply situation in respect to the particular commodity. In the case of items in very short supply each application for an export permit is considered separately, while for others export permits are issued against an established quota. For a further class of commodities permits are freely issued, the machinery of export control being retained to permit prompt action if the supply situation should deteriorate.

Import Controls.—Import controls, like those on exports, owe their existence to world shortages of certain items. They are essential to ensure that imports of any item allocated by an international organization do not exceed that allocation. Import controls are administered by the Department of National Revenue in co-operation with the Wartime Prices and Trade Board. Their scope has been much less extensive than that of export controls. Commodities at present under import control include sugar, molasses, sugar syrups and other high sugar-content items, oils and fats and oil-bearing materials, prunes, currants and raisins, canned meats and canned poultry, dairy products*, wheat and wheat products†.

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* Prepared in the Research Division, Wartime Prices and Trade Board, Ottawa. This article deals with developments in the year 1946 and the first two months of 1947. The development of distribution controls and administration of rationing are described in the Year Books 1943-44 (pp. 521-526), 1945 (pp. 564-571) and 1946 (pp. 574-578).

Equitable Distribution Policy.—The policy of equitable distribution governing goods in short supply was further relaxed in 1946 and early 1947. Under the original system, manufacturers and wholesalers of scarce goods were required to allocate supplies to their customers on the basis of 1941 sales to these customers. Towards the end of 1945, the policy was revised by exempting from the application of equitable distribution controls some goods such as automobiles and electrical appliances for which the 1941 pattern of distribution was no longer appropriate, and by permitting free distribution of 20 p.c. of current supplies of some other goods provided that reasonable quantities were made available to ex-service men. During 1946, several other items were released from equitable distribution controls and in January, 1947, all goods remaining subject to the policy were placed in the category that allowed freedom of distribution with respect to 20 p.c. of current supplies. At the same time, a number of additional goods were entirely freed from the application of the policy. Goods exempted from price control automatically ceased to be subject to the controls of equitable distribution as did also those that were no longer in short supply.

Foods.—‡Most Canadian crops in 1946 were very good especially in comparison with the relatively small yield of 1945. Output of some dairy products, however, showed significant decreases from the preceding year. The combination of a decline in total milk production in 1946 and the continuance of a heavy volume of fluid milk sales reduced the amount available for the production of butter and cheese. Hog slaughterings in 1946 showed a substantial drop from 1945 and cattle marketings, though still large, were somewhat smaller than in the previous year. Sugar supplies were moderately above the low level of 1945 but other imported items, particularly oils and fats, remained very scarce.

Urgent export requirements, heavy domestic demands and the reduced production of some foods made it necessary to continue a number of restrictions on the domestic consumption of food. The rationing of butter, meat and sugar was maintained, restrictions on cream sales were continued and controls on the distribution of evaporated milk were extended.

However, a number of controls affecting foods were removed during 1946. The excellent crops of wheat, fruit and vegetables made possible the lifting of restrictions imposed in March, 1946, on the use of wheat for milling and the elimination of distribution controls on canned fruits and vegetables except tomatoes and tomato juice. By the end of 1946, the bulk purchasing of all dried fruits except raisins, currants and prunes had been discontinued and in January, 1947, the tea and coffee trade was advised that no further bulk purchases of tea and coffee would be undertaken when current contracts were completed.

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* Import control was imposed at the request of the Department of Agriculture.

† Import control was imposed at the request of the Wheat Board.

‡ A number of important controls were discontinued after this article had been prepared. Meat rationing was discontinued on Mar. 27, 1947. Early in April a number of supply and distribution controls respecting dairy products were withdrawn—those prohibiting the sale of whipping cream, limiting the monthly sales of cream distributors and controlling the disposition of cheddar cheese. Butter rationing was terminated on June 9, and at the same time controls restricting the distribution of evaporated milk in certain areas were withdrawn.

Meat.—The weekly meat ration, varying from one to three pounds depending upon the type of meat, remained unchanged, except for a minor change in November, 1947, when the number of tokens for canned sausages was reduced.

Hog slaughtering regulations, which were part of the machinery of meat rationing, were revised several times. In April, 1946, controls over hog slaughterings were tightened to check abuses by which some operators were obtaining hogs in excess of their quotas.

Butter.—Less butter was produced in 1946 than in the preceding year. The butter ration had been reduced from 7 ounces to 6 ounces per week in January, 1946, and then to 4 ounces in March. As the supply situation eased in the spring season, the rate was increased to 5⅓ ounces in the middle of May and further raised to 6 ounces in June.

Distribution irregularities, arising out of the tight supply position, necessitated some measure of control over the butter sales of Prairie wholesalers. A practice developed whereby Prairie wholesalers were buying up, in addition to their usual requirements, the stocks that would normally have been sold to wholesalers in other provinces. These wholesalers thus had to purchase their supplies at the wholesale price and had no margin left. To correct this situation, monthly sales of Prairie wholesalers to wholesalers in other provinces were limited to the amount sold these customers in the corresponding months of 1945.

Cream.—For several years, sales of cream have been subject to certain restrictions designed to conserve butterfat for the production of butter. Thus, the butterfat content of fluid cream was limited to 18 p.c. and the monthly sales of cream distributors in most of the important markets were limited on the basis of their sales in June, 1944. Control over fluid milk was returned to the provincial milk boards when the consumer milk subsidy was discontinued in June, 1946.

Cheese.—The production of cheddar cheese in 1946 was only about three-quarters of the output in 1945. Because of this and the requirements of the contract with the United Kingdom, supplies available to the domestic market were limited and steps had to be taken to secure fair distribution. In August, 1946, the Board took control of all stocks of cheese held by processors and dealers in excess of 75 p.c. of their holdings on Aug. 1, 1945, and required all persons holding more than 5,000 pounds of cheddar cheese to report such stocks. In October, a further and more extensive step was taken to check the diversion of cheese from normal trade channels. Wholesalers were prohibited from selling without permission any cheddar cheese manufactured in Ontario or Quebec after Oct. 12, 1946, and were required to hold such cheese for disposition under direction of the Administrator.

Evaporated Milk.—The declining production of evaporated milk made it necessary to extend in November, 1946, the distribution controls designed to assure supplies for essential requirements. Under the priority system as established in October, 1943, sales of evaporated milk in areas adequately supplied with fresh milk had been restricted to infants and invalids, while in "deficiency areas" these users received first priority. During the following two years, however, it had been possible to relax the regulations by removing controls in areas deficient in fresh milk and also by lifting all restrictions in the western provinces. Since early in 1945, therefore, restrictions had been in force only in the southern parts of Ontario and Quebec where adequate supplies of fresh milk were available. In November, 1946, the controls were extended to additional areas and included for the first time as "restricted areas" some parts of the Maritimes. At the same time, the regulations governing the issue of evaporated milk coupons for infants were tightened to ensure closer control over sales.

Sugar and Preserves.—The international allocation of short supplies of sugar continued throughout 1946. The total supply available to Canada improved sufficiently to permit several increases for quota users and an extra allotment to consumers in the last three months of the year. At the beginning of the second quarter of 1946, the quotas of sugar for industrial users were raised and they were further increased in the second half of the year. Quotas then stood at the following proportions of 1941 usage: bakers, 80 p.c.; biscuit and cereal manufacturers, 75 p.c.; others, such as soft drink, confectionery and candy manufacturers, 70 p.c. The allotments of quota users, such as hotels, restaurants and lumber camps, were also adjusted upward.

Sugar and preserves rationing had been combined under a single scheme in January, 1946. Generally, two sugar preserve coupons (good for one pound of sugar, 24 ounces of jam, jelly or marmalade, or appropriate amounts of other preserves) became valid each month. In the months of March and April, three coupons were validated to allow additional preserves in the period of the reduced butter ration. During the last four months of the year an additional three pounds of sugar was made available to consumers. In December, 1946, canned fruits as well as cranberry sauce and baby foods containing fruit were removed from rationing in view of the excellent fruit packs that year. Pie fillers, fruit fillers and fountain fruits continued to be rationed only if they contained 66 p.c. or more of sugar and thus were classified as jams. Maple products were removed from rationing in February, 1947, though industrial users were still required to obtain permission for the use of maple syrup or maple sugar in the manufacture of other products. On Apr. 1, 1947, an increase of 14 p.c. in the individual sugar ration became effective, raising the ration from 7 to 8 pounds in each quarter. At the same time, the industrial ration was also increased.

Textiles.—Canada's total textile supply, though somewhat larger in 1946 than in 1945, was still inadequate. Difficulties continued to be experienced in securing adequate imports of broadwoven cotton fabrics and imported fine count cotton yarns were also scarce. Domestic production of cotton yarns and fabrics was restricted by industrial disputes which also affected rayon fabric output. The production of certain rayon fabrics was hampered, in addition, by inadequate imports of filament yarns. In the case of wool, the chief difficulty was the shortage of imported wool tops (particularly merinos), and supplies of worsted yarns and fabrics were not fully adequate.

Several wartime procurement arrangements came to an end in 1946. Early in the year, the procurement of wool yarn and fabric allocations from the United Kingdom, previously purchased in part by the Canadian Wool Board, was returned to private importers. Towards the end of 1946, the United States announced the termination of their system of cotton yarn and fabric export allocations.

Directed Production.—In view of the continuing inadequacy of yarn and fabric supplies in 1946, the Board maintained the system of "production directives" designed to secure the largest practicable output of essential garments. Articles under directive during the year included men's suits and shirts, work clothing, most types of children's garments, women's lingerie, and knitted underwear and hosiery for men, women and children. In addition, production directives applied to men's overcoats in the second half of the year which is the heavy production season. Directives on knitted outerwear for adults and men's work socks were dropped on Mar. 1, and Apr. 1, respectively, while the women's rayon dresses program was terminated at the end of June.

The directive program carried over into 1946 was more flexible and informal than that of 1945. In the case of woollens and worsteds, the system was simplified by the abolition of "fabric purchase authorizations" under which manufacturers of garments under directive had received their supplies of woollens and worsteds. The flow of fabrics to manufacturers continued to be guided along the general lines established when the authorizations were in effect.

Rayon garment directives were modified in the latter half of 1946 and the directive on dresses was dropped. The lingerie, children's wear, and lining fabric directives were continued in respect of total yardage but the provisions for distribution were relaxed somewhat.

Production under the woollen garment directives was generally very good, and was reasonably satisfactory in the case of rayon. The output of woven cotton garments, particularly men's fine shirts, was restricted by fabric shortages and labour difficulties, and insufficient supplies of the finer count cotton yarns hampered the production of knitted underwear.

The improvement in supplies of woollens and rayons by the end of 1946 made possible the termination of most directives. Garment manufacturers were advised to continue in 1947 the pattern of production and distribution of the previous year. Directives for garments using cotton woven fabrics were also discontinued in view of the termination of United States export allocations of cotton yarns and fabrics. Hosiery and knitted underwear directives are being continued into 1947 in their original form.

Service Men's Suit Priority Program.—The special priority system under which each discharged service man received priority in the purchase of a suit remained in effect throughout most of 1946. In July, demobilization was well advanced and the regulation requiring manufacturers to set aside 35 p.c. of their production for delivery against priority certificates was withdrawn. Priority certificates were issued until Oct. 30, 1946, and retailers and merchant tailors were required to honour them up to Dec. 31, 1946. This priority system was successful in meeting the heavy demands of service men for suits.

Removal of Style Restrictions.—With one exception, the few remaining standardization and simplification restrictions respecting clothing were withdrawn during 1946. In March, the regulations limiting manufacturers of women's and misses' coats, suits and jackets to 50 styles each season was revoked and, in November, controls governing the length and sweep of garments and eliminating unessential accessories were lifted. The restriction limiting the use of fleece fabrics to essential garments was continued.

Pulp and Paper Products.—While the output of pulp and paper products reached a high level in 1946, it was necessary to continue distribution controls over many items to prevent an excessive drain to the higher priced external markets and to provide for the most essential users.

Since the end of 1945, when the allocation of newsprint to export markets was discontinued, domestic supplies had been provided for by directives to the mills. When manufacturers' ceiling prices were suspended in May, 1946, informal arrangements were made with the mills to continue to supply Canadian customers on the basis of their established quotas and, in addition, to make available to them a fair share of any increased supply for sale on the North American market. This arrangement was continued until June, 1947.

The allocation of wood-pulp and paper board to domestic users also continued in 1946 in view of the urgent requirements at home and the pressure of export demands. Supplies of waste paper were inadequate and controls governing its distribution to various users were maintained.

Special measures were taken to meet the heavy demand for packaging materials for building products and food for both the export and domestic markets. To permit an increase in the production of multi-wall sacks for these purposes, kraft paper was diverted from use for wrapping paper, brown envelopes and bags. The distribution of shipping cases was governed by a priority system under which preference in delivery was given to orders from essential users such as food and building material manufacturers.

Metal Products.—*Metals.*—Continuing shortage of some metals, aggravated in several cases by work stoppages, necessitated various controls over their distribution and use. The output of iron and steel was seriously restricted by labour disputes, chiefly in the steel and coal industries of the United States and the Canadian steel industry. The Steel Control of the Department of Reconstruction and Supply was re-established in January, 1946, and throughout the year directed the production and distribution of basic steel products with the object of securing the maximum output of the finished steel articles most urgently required. Certain subsidies were necessary to maintain uneconomic production which otherwise would have been discontinued. Some transportation subsidies were also provided where the diversion of steel, although uneconomic and unusual, would bring about a greater supply of needed finished products.

In the case of copper, lead and zinc, higher external prices constituted a potential heavy drain on supplies and, to protect domestic requirements, producers were required to allocate sufficient quantities to the Canadian market.* As a result of a work stoppage involving the principal domestic manufacturer of copper and brass mill products, the sale of these products was for a time restricted by permit to the most essential uses such as housing, refrigerators and farm implements.

Tin remained in short supply throughout the world owing to the slow recovery of exports from Malaya, and Canada's supply continued to be bulk purchased and allocated to the various users. The shortage of tin necessitated the continuance of restrictions on the use of metal containers.

Metal Containers.—Following the steel strike in the United States, the regulations on metal containers were tightened by further restricting the list of products that could be packed in cans and by requiring the manufacturers of tin mill products to give priority to materials for containers required for these essential products. With the easing of the situation in April, the use of metal containers was permitted for additional products but, at the same time, limitations were placed on the quantities of cans that would be used for packing some of these items. The priority system governing the production of tin mill products was discontinued in February, 1947.

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* The spread between export and domestic prices of these metals was reduced when higher ceiling prices were authorized in January, 1947.

Motor-Vehicles.—In August, 1946, the Department of Reconstruction and Supply withdrew its regulations respecting the distribution of new motor-vehicles. It had become increasingly difficult to decide the relative essentiality of various needs and, in addition, the interruptions to the production of new cars interfered with the operations of the priority system. The essentiality certificate system governing the sale of used cars was discontinued in May, 1946.

Section 2.—Combinations in Restraint of Trade*

Dominion legislative measures for aiding and regulating trade include specific prohibitions of operation against the public interest by monopolies and similar commercial combinations. Monopolistic trade arrangements tending to eliminate competition in price, supply or quality of goods, and thereby to increase unduly costs or prices, are illegal under laws including the Combines Investigation Act and Sect. 498 of the Criminal Code. These laws are designed to assist in achieving the widest desired use of the nation's economic resources by promoting reasonable competitive opportunities for the expansion of production, distribution and employment.

The first Federal legislation in this field was enacted in 1889 and is still effective in amended form as Sect. 498 of the Criminal Code. Legislation providing for investigation of trusts or combines was first enacted in 1897 as part of the Customs Tariff Act. In 1910 a separate Combines Investigation Act was provided and succeeding Acts were enacted in 1919 and 1923.

The Combines Investigation Act.—The Combines Investigation Act (c. 26, R.S.C. 1927, as amended in 1935, 1937 and 1946) provides for investigation of trade combinations, mergers, trusts and monopolies alleged to have been formed or operated in restraint of trade and to the detriment of the public. Organizations or commercial arrangements of this class which operate to the detriment of the public by enhancing prices, fixing common prices, restricting competition, limiting production or otherwise restraining or attempting to restrain trade, are defined in the Act as combines. Participation in the formation or in the operation of a combine is an indictable offence, subject to penalties up to $25,000 or two years' imprisonment. Investigations of alleged combines under the Act are conducted under the direction of the Combines Investigation Commissioner who reports to the Minister of Justice. The Act provides for publication of reports of such investigations and for prosecution when a combine is found to exist.

An inquiry into the nature and effects of international cartels and other similar types of private monopolistic controls affecting Canadian trade was completed in 1945. This involved a survey of the principal kinds of international industrial combinations which had restrictive or monopolistic effects upon the production and distribution of commodities entering into Canada's foreign and domestic trade in the pre-war period. It included an examination of needs for the prevention or public control of types of commercial combinations that were capable of unduly restricting Canadian trade. The results of the inquiry were published in a report entitled "Canada and International Cartels", made by the Commissioner of the Combines Investigation Act to the Minister of Justice in October, 1945. The report included recommendations that the Act be strengthened in certain matters of procedure; that more adequate facilities be provided for investigations; that wider use be made of Government powers to prevent the development of combines and that Canada co-operate in the establishment of an inter-governmental body dealing with international aspects of undesirable cartel practices.

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* Revised by F. A. McGregor, C.B.E., Commissioner, Combines Investigation Act, Department of Justice, Ottawa.

The 1946 amendments to the Combines Investigation Act gave legislative form to the recommendations respecting procedure and facilities for investigation, including investigation of alleged breaches of Sects. 498 and 498A of the Criminal Code which concern offences related to those covered by the Combines Investigation Act. The section in the cartel report showing how patents may be used to assist in monopolization of trade against the public interest is reflected in the amendment authorizing the Exchequer Court to prevent by court order certain uses of patents or trade marks in undue restraint of trade.

During the war years, no formal investigations were conducted under the Combines Investigation Act as the greater part of trade and industry in Canada remained subject to the extensive wartime control measures administered by the Wartime Prices and Trade Board, the Department of Munitions and Supply and other governmental wartime agencies. Accordingly, matters which in times of peace would have been subjects for investigation under the Combines Investigation Act were dealt with by the appropriate wartime authority. Since the cessation of hostilities and with the gradual relaxation of wartime controls, the need for resumed activity under the Act has been recognized by reorganization of staff, amendment to the Act, and increased investigation activity.

Action initiated in 1943 in the Exchequer Court to impeach certain optical goods patents was still pending at the end of 1946. The action had arisen from an earlier investigation under the Combines Investigation Act.

Inquiries were made during 1946 in a number of industries and trades in which it was alleged that trade practices of a restrictive or discriminatory character were being followed.

In several cases where possible conflict with combines legislation might have arisen, representatives of trade associations have, during 1946, discussed their tentative plans with the Combines Investigation Commission and have avoided the adoption of restrictive policies that might have been questioned as being possibly contrary to the Act. In dealing with such matters, much may be accomplished in a preventive way where the organizations concerned are prepared to discuss their tentative programs in the light of the need for maintenance of competitive conditions and to see that the public interest therein is not likely to be prejudiced by the policies that may be adopted.

International Restrictions in Trade.—In December, 1945, the Government of the United States published a document entitled "Proposals for Expansion of World Trade and Employment" copies of which were transmitted to other governments of the world. These proposals, which had been the subject of discussion with the United Kingdom, contemplated international action for the removal of barriers to trade, including those resulting from private restrictive business practices commonly referred to as cartel agreements. The suggestion of the Government of the United States that the United Nations should convene a world conference on trade was followed by the adoption of a resolution in February, 1946, by the Economic and Social Council setting up a preparatory committee to prepare a draft convention and to make recommendations for the holding of a general conference. Representatives from 17 countries, including Canada, met at London, England, in the autumn of 1946 as the Preparatory Committee of the International Conference on Trade and Employment. The Commissioner of the Combines Investigation Act was a member of the Canadian delegation and sat on the Working Committee on Restrictive Business Practices. After several weeks of deliberation, delegates on this sub-committee reached general agreement on recommendations to the main preparatory committee as to arrangements that might be instituted by an International Trade Organization to receive and investigate complaints of restrictive business practices which hamper world trade and to transmit the results of such inquiries to the participating countries. The conclusions of the Preparatory Committee were to be considered at committee sessions to be held at Geneva, Switzerland, in the spring of 1947 prior to a general conference in the autumn of that year.

Section 3.—Patents, Copyrights and Trade Marks*

Patents.—Letters patent, which in England have been in the gift of the Crown from the time of the Statute of Monopolies (1624) and earlier, are and always have been a statutory grant in Canada. An Act was passed in Lower Canada in 1824 wherein provision was made for the granting of patent rights to inventors who were British subjects and inhabitants of the Province. Upper Canada passed an Act in 1826, and Nova Scotia and New Brunswick passed Acts at later dates. In 1849, after the Union, a consolidating Act was passed applying to both Upper and Lower Canada, and the B.N.A. Act (1867) assigned the granting of patents exclusively to the Parliament of Canada. The Dominion Patent Act of 1869 repealed the provincial Acts and has formed the basis of all succeeding legislation.

Letters patent are now issued subject to the provisions of c. 150, R.S.C., 1927 as consolidated in c. 32, 1935, and application for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa, Canada.

The Patents, Designs, Copyright and Trade Mark (Emergency) Order, 1939, was passed to deal with conditions arising out of the War of 1939-45. The Order confers on the Commissioner of Patents power to extend the time for doing anything prescribed by the Patent Act, the Design Act and the Copyright Act; to grant licences to manufacture under enemy-owned patents, designs and copyrights; to vary existing agreements; to hold secret or to withhold from publication any disclosure that might be of service to the enemy; and to grant permission to file patent applications abroad. The main object of the licensing provisions under the Order is to permit and encourage the working in Canada of inventions protected by enemy-owned patents, which for that reason could not be utilized during the War.

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* The material relating to patents and copyrights has been revised by J. T. Mitchell, Commissioner of Patents, and that relating to trade marks by J. P. McCaffrey, Registrar of Trade Marks, Ottawa.

1.—Patents Applied for, Granted, etc., in Canada, Years Ended Mar. 31, 1941-46

Item		1941	1942	1943	1944	1945	1946
Applications for patents	No.	9,064	9,678	10,024	11,227	12,672	14,778
Patents granted	"	7,834	8,346	7,686	7,803	7,084	7,412
Granted to Canadians	"	608	595	500	480	486	495
Caveats granted	"	318	246	233	223	302	421
Assignments	"	7,728	7,488	8,530	7,857	8,265	8,964
Fees received, net	$	333,646	351,553	348,036	366,254	388,593	421,539

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 12,542 in 1923 and has remained between 7,000 and 8,500 for the past ten years. Of the 7,412 patents granted in 1946, 5,845 or 79 p.c. were from inventors resident in the United States, 495 from Canadian residents and 734 from residents of the United Kingdom, while residents of Switzerland applied for 94, of Sweden for 55, of Germany for 52, of the Netherlands for 44, of France for 27, and of other countries for 66.

During the past decade, inventions in the chemical arts (chemicals, fuels, oils, plastics, medicines, pulp, metallurgy and electrochemistry) have been the most numerous, followed by inventions in the electrical class (generation, power, distribution, lighting, heating, intelligence transmission). In 1946 over one-half of the patents applied for fell in these two classes. In chemistry, the trend was pronounced in the development of acrylic and vinyl resins and plastics. Applications *re* synthetic dyes, the preparation, use and regeneration of catalysts, and lubricating compositions were also numerous, and those *re* therapeutic substances, especially sulfa drugs, penicillin and other substances produced from moulds, received much attention.

In the electrical field, inventions *re* rectification systems, circuit breakers, electronic and condenser welding and high-frequency heating were numerous. In radio, the outstanding trend was in the development of electronic devices, radar developments and radio relay transmission systems.

Inventions for warfare, except in aeroplane structure, declined, though variable pitch propellers and hydraulic and electrical controls for aeroplanes have retained the interest of inventors. In gas engines, attention was directed to jet propulsion, superchargers and fuel and ignition systems. In farm machinery, development continued in combines and other harvesters. Building construction was very active, especially in structural details for portable and knock-down houses. Increased interest was also shown in metal cans and boxes, shaft packing using natural and synthetic rubber, the lasting of shoes, the use of plywood in boats, photo-sensitive emulsions, toys and games, cigarette lighters, can openers, etc.

Copyrights, Industrial Designs and Timber Marks.—Registration of copyright is governed by c. 32, R.S.C., 1927, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in c. 32, R.S.C., 1927) sets out, in Sect. 4, the qualifications for a copyright and, in Sect. 5, its duration: "Copyrights shall subsist in Canada . . . in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the Berne Convention and the additional Protocol . . . or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death".

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of His Majesty's Dominions, foreign countries of the Copyright Union, and the United States of America, as well as in Canada.

Protection of industrial designs and of timber marks is afforded under the Trade Marks and Design Act (c. 201, R.S.C., 1927) and amendments, and the Timber Marking Act (c. 198, R.S.C., 1927) and amendments. Registers of such designs and marks are kept under the Copyright Branch of the Patent Office, and information regarding them is published in the *Patent Office Record*.

2.—Copyrights, Industrial Designs and Timber Marks Registered in Canada, Years Ended Mar. 31, 1941-46

Item		1941	1942	1943	1944	1945	1946
Copyrights registered	No.	3,298	3,741	3,214	2,869	3,374	3,823
Industrial designs registered	"	336	256	177	266	326	525
Timber marks registered	"	11	7	9	8	10	5
Assignments registered	"	494	485	349	315	422	374
Fees received, net	$	15,995	15,247	14,252	15,405	16,847	17,818

Trade Marks and Shop Cards. — The Trade Marks Office, a Branch of the Department of the Secretary of State, is charged with the administration of the Unfair Competition Act, 1932, which repealed all previous Acts governing trade marks, and also with the Shop Cards Registration Act, which came into force on Sept. 1, 1938. Applications for registration of trade marks and/or shop cards should be addressed to the Registrar, Trade Marks Office, Ottawa, Canada.

A Register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted, and notification of any assignments, transmissions, disclaimers and judgments relating, to such trade mark. In order that the public may be kept informed in the matter of trade-mark registration, a list of marks registered appears in the *Patent Office Record* which is issued weekly.

The Shop Cards Registration Act is designed to afford a measure of protection to organizations, such as trade unions, that formerly were able to register their particular designations as Union Labels under the Trade Mark and Design Act. Registrations under the Act may be renewed every 15 years.

3.—Trade Marks and Shop Cards Registered in Canada, Years Ended Mar. 31, 1941-46

Item		1941	1942	1943	1944	1945	1946
Trade marks registered	No.	1,687	1,443	1,185	1,164	1,144	1,952
Trade-mark registrations assigned	"	798	392	692	693	706	971
Trade-mark registrations renewed	"	376	311	365	627	696	898
Certified copies prepared	"	245	174	183	193	317	475
Shop cards registered	"	1	1	Nil	2	1	1
Fees received, net	$	51,107	42,186	42,385	48,556	76,089	107,448

Section 4.—Weights and Measures*

The object of weights and measures administration is to maintain uniformity and accuracy in the use of legal standards of the country in industry and commerce. An outline of the principal legislation and legal standards is given at p. 527 of the 1941 Year Book. The Weights and Measures Service is administered by the Department of Trade and Commerce. For purposes of administration, the Dominion is divided into 19 districts, each in charge of a District Inspector.

The total revenue collected by the Service in the years ended Mar. 31, 1945 and 1946 amounted to $408,629 and $414,522, respectively, while the expenses, including salaries, amounted to $420,389 and $425,930, respectively.

4.—Inspections by the Weights and Measures Service, Years Ended Mar. 31, 1945 and 1946

Article	1945				1946			
	Submitted	Verified	Rejected	P.C. Rejected	Submitted	Verified	Rejected	P.C. Rejected
	No.	No.	No.		No.	No.	No.	
Weights (Dominion)	125,442	120,559	4,883	3·89	135,139	130,270	4,869	3·60
Weights (metric)	2,090	2,011	79	3·78	2,328	2,289	39	1·25
Measures of capacity	51,642	51,051	591	1·14	43,675	43,186	489	1·12
Measures of length	8,715	8,675	40	0·46	8,054	8,035	19	0·24
Milk-cans	162,102	161,801	301	0·19	137,444	137,119	325	0·23
Ice-cream containers	6,041	6,041	Nil	–	7,910	7,900	10	0·13
Measuring devices	45,768	40,456	5,312	11·60	46,756	41,257	5,499	11·76
Tank wagons	870	779	91	10·46	1,417	1,308	109	7·69
Babcock glassware	37,928	37,655	273	0·72	57,421	57,222	199	0·34
Weighing machines	215,548	192,835	22,713	10·54	216,788	194,502	22,286	10·28
Weighing machines (metric)	1,412	1,350	62	4·39	1,551	1,489	62	4·00
Domestic scales	367	365	2	0·54	409	397	12	2·93
Miscellaneous	2,054	2,001	53	2·58	1,217	1,169	48	3·94
Totals	**659,979**	**625,579**	**34,400**	**5·21**	**660,109**	**626,143**	**33,966**	**5·13**

Section 5.—Electricity and Gas Inspection†

The Electricity and Gas Inspection Branch of the Department of Trade and Commerce administers three Acts: the Electricity Inspection Act (c. 22, 1928), the Gas Inspection Act (c. 82, R.S.C., 1927) and the Electricity and Fluid Exportation Act (c. 54, R.S.C., 1927).

The Gas Inspection Service was inaugurated on July 1, 1875, and the Electricity Inspection Service in 1894, at which time these two Services were merged to form the Electricity and Gas Inspection Services and constituted as a Branch of the Department of Inland Revenue. When the Department of Inland Revenue was merged with other Departments in September, 1918, the Electricity and Gas Inspection Services became a Branch of the Department of Trade and Commerce.

For the purpose of this administration, Canada is divided into 3 divisions and 20 districts: the total staff is 109. The nature of the work performed by these Services is entirely technical and comprises the control of all types of electricity and gas meters used throughout Canada, and the testing and stamping of every meter used for billing purposes, the object being to ensure the correct measurement of electricity and gas sold. Manufactured gas is also tested to determine its heating value wherever sold in Canada.

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* Revised by the Director of Weights and Measures, Department of Trade and Commerce, Ottawa.

† With the exception of the figures on gas sold in Canada, this material has been revised by J. L. Stiver, Director, Electricity and Gas Inspection Service, Department of Trade and Commerce, Ottawa.

The latest report of the Branch shows 534,192 electricity and gas meters tested in the year ended Mar. 31, 1946, as compared with 473,878 in the preceding year. The total revenue derived from electricity and gas inspection was $367,197 as compared with an expenditure of $280,364. The Branch also collected $695,243 as export duty and licence fees under the provisions of the Electricity and Fluid Exportation Act.

Related statistics collected in the administration of the Electricity and Fluid Exportation Act will be found in the Power Chapter of this volume, pp. 501-502.

5.—Electricity and Gas Meters in Use, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1916-36 are given at pp. 561-562 of the 1942 Year Book.

Year	Electricity Meters	Gas Meters				
		Manufactured	Natural	Acetylene	Butane	Total
	No.	No.	No.	No.	No.	No.
1937	1,839,420	506,075	169,132	3	1,035	676,245
1938	1,905,692	510,261	174,355	3	1,268	685,887
1939	1,964,729	512,373	179,988	3	1,224	693,588
1940	2,037,563	514,170	185,499	3	1,184	700,856
1941	2,109,437	519,095	192,097	4	1,157	712,353
1942	2,181,945	524,669	197,781	4	1,196	723,650
1943	2,228,716	532,160	197,585	4	1,278	731,027
1944	2,268,500	540,240	201,522	4	1,392	743,158
1945	2,348,150	552,411	208,046	4	1,529	761,990
1946	2,459,672	550,949	215,330	4	1,651	767,934

6.—Sales of Manufactured and Natural Gas, 1942-46

Year and Division	Manufactured Gas				
	Domestic	House Heating	Industrial	Commercial	Miscellaneous
	M cu. ft.	M cu. ft.	M cu. ft.	M cu. ft.	M cu. ft.
1942	9,592,040	991,228	4,958,969	3,260,988	111,172
1943	10,711,654	1,267,416	5,543,653	3,492,052	69,471
1944	12,098,351	1,333,339	5,786,717	3,671,522	47,350
1945	12,720,922	1,679,796	5,109,828	3,893,848	48,423
1946	13,774,656	1,760,702	4,618,650	4,052,247	35,390
1946					
Eastern Canada	12,227,361	1,413,735	3,590,143	3,485,943	2,582
Western Canada	1,547,295	346,967	1,028,507	566,304	32,808

Year and Division	Natural Gas				Total
	Domestic	Industrial	Commercial	Miscellaneous	
	M cu. ft.	M cu. ft.	M cu. ft.	M cu. ft.	M cu. ft.
1942	15,833,766	6,621,553	6,124,803	974,299	48,468,818
1943	14,480,386	7,589,289	7,035,941	564,635	50,754,497
1944	14,565,801	6,144,211	7,410,938	1,062,106	52,120,335
1945	16,875,164	8,375,151	8,276,943	404,328	57,384,403
1946	17,398,813	7,711,571	7,834,497	241,264	57,427,790
1946					
Eastern Canada	6,490,589	1,150,963	602,729	201,392	29,165,437
Western Canada	10,908,224	6,560,608	7,231,768	39,872	28,262,353

Section 6.—Bounties and Subventions

Bounties.—In cases where it is considered advisable to encourage the production of a particular commodity, bounties paid by the Government are recognized substitutes for protective duties. In the past they have been used in Canada to a considerable degree*, but the only bounty that has involved payments by the Federal Government during the past ten years is a bounty of 49½ cts. per ton on bituminous coal mined in Canada and used in the manufacture of iron or steel. The bounties paid for the years ended Mar. 31, 1931 to 1941, are given at p. 562 of the 1942 Year Book; those for fiscal years since that time are as follows:—

Year Ended Mar. 31—	*Tonnage on Which Bounty Paid*	*Bounty Paid*
1942	765,775	$379,059
1943	766,144	379,241
1944	646,875	320,203
1945	709,091	351,000
1946	656,781	325,107

Following the outbreak of war in 1939, Dominion and provincial wartime bonuses were introduced to encourage the production of particular commodities and had an effect similar to that of bounties (the Province of Alberta, for instance, instituted a bonus of 4 cts. per lb. on wool during this period). These bonuses were dealt with in the various sections of wartime editions of the Year Book where they had a direct relationship to production.

Bounties are also paid by certain Provincial Governments. The Government of Nova Scotia, under the Mines Act relating to coal, pays a rebate of lease rental under specified conditions, the amount of which was $4,140 for each of the years 1943 and 1944, $4,260 for 1945 and $4,230 for 1946. In Ontario, under the Iron Ore Bounty Act passed in 1937, the following amounts have been paid: $118,705 in 1939, $313,864 in 1940, $302,016 in 1941 and $306,090 in 1942; no bounties have been paid since 1942. Provision also exists in British Columbia for the payment of bounties on the production of pig iron from ore and steel, but at present these materials are not being produced in that Province.

Subventions on Coal.†—This form of assistance to Canadian coals was inaugurated in 1926. In that year a Special Committee of the House of Commons recommended that trial shipments of Alberta domestic coal be made by rail and lake to parts of Central Canada and that the Government should consider the question of granting assistance to the carrier or the agency handling the coal in order to enlarge the markets for Maritime coals.

Growing out of test movements then made, a system of Federal aid developed. This assistance took the form of transportation subventions granted by Order in Council. In general, the Federal Government contributed the approximate difference in laid-down costs of Canadian coals compared with imported coals. The methods adopted to achieve this were: (1) Payment on individual movements of the actual difference between the laid-down cost of Canadian coals and imported coals at the point of delivery; (2) reduction of the freight rate on coal by payment to the carrier of either an allowance per ton-mile or a percentage of the set rate; (3) payment of $2·50 per ton on an $8 rate offered by the railways for the movement of Alberta coal into Central Canada.

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* See p. 563 of the 1942 Year Book.

† This material has been summarized from the "Report of the Royal Commission on Coal, 1946". For detailed treatment of this subject, see Chapter 13 of that Report, pp. 565-577.

The assistance extended to Nova Scotia coals from the beginning of subventions in 1928 to 1944 has averaged between 58 cents per ton in the first year to $2·87 in 1943 and $2·42 per ton in 1944 (this included authorized payments between 1932 and 1942 on Nova Scotia coal converted into coke in the Maritimes up to a maximum of $1 per ton).

Assistance to New Brunswick coal between 1928 and 1944 varied between $1·75 per ton in 1928 and $1·95 per ton in 1930 down to 77 cents per ton in 1944.

Alberta and British Columbia coals have received aid in the form of a reduction in freight rate. During the first year, 1930, this amounted, in the Maritimes and Head of the Lakes area, to one-eighth of a cent per ton-mile, in 1931, one-seventh of a cent per ton-mile with a maximum of $1·50 per ton. In 1932, this maximum was reduced to $1·20 per ton and in 1934 the reduction of rate was fixed at one-twelfth of a cent per ton-mile and the maximum at 20 cents per ton.

In the case of British Columbia coal shipped to Ontario points where the freight rate was $8 per ton or more, the railways offered, in 1933, a flat rate of $8 to all points in Ontario where existing rates equalled or exceeded that figure, provided the Government paid a flat subvention of $2·50 per ton. Thus the freight rate to the consumer was $5·50 per ton. Previous to 1933, the cost to the Federal Government had varied between $5·96 per ton in 1928 and $5·09 in 1932.

Some Saskatchewan lignite, moved to Manitoba and to a lesser extent to the area of the Head of the Lakes, received assistance to compensate for that extended to bituminous coal that has varied between 50 cents per ton in 1930, 23 cents in 1935, 1937 and 1938, to 93 cents per ton between 1941 and 1944.

The total cost to the Federal Government of coal subventions granted between 1928 and 1944, inclusive, has been $37,275,230 apportioned as follows:—

—	tons	$
Nova Scotia coal	21,220,370	25,099,528
New Brunswick coal	292,960	223,329
Alberta and Eastern British Columbia coal	6,229,790	10,259,417
Saskatchewan coal	1,314,729	440,393
British Columbia export and bunkering assistance	1,726,659	1,252,563
TOTALS	30,784,508	37,275,230

In addition, $41,495,032 has been granted in the form of statutory assistance under the Domestic Fuel Act and the Coke Bounties Act; this assistance for the main part has been directed to the encouragement of the use of coke made from Nova Scotia coal in the manufacture of iron or steel (see under Bounties).

Section 7.—Control and Sale of Alcoholic Beverages*

A brief historical outline of Dominion and provincial legislation passed from time to time concerning the control and sale of alcoholic beverages is given at p. 563 of the 1942 Year Book.

The provincial liquor control Acts have been framed to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination of private profit therefrom. Partial exception is made in the retail sale of beer by brewers, or others which certain provinces permit, while reserving regulative rights and taxing such sales heavily. The provincial monopoly extends only to the retail sale and not to the manufacture of alcoholic beverages. The original liquor control Acts have been modified from time to time as deemed advisable.

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* Abridged from the report "The Control and Sale of Alcoholic Beverages in Canada", Dominion Bureau of Statistics, Price 50 cents.

During the war years, restrictions were placed on the manufacture, advertisement, importation and sale of alcoholic beverages, but by Aug. 30, 1945, most of such measures had been rescinded. They are outlined at p. 586 of the 1946 Year Book.

The exigencies of war had a profound effect on the operations of this industry. Due to the great demands for industrial alcohol, the production of potable alcohol had to be curtailed, with the result that the quantity of beverage spirits produced during the year and placed in bond for maturing declined from 9,009,874 proof gal. in 1942 to 2,699,050 proof gal. in 1943. On the other hand, the output of unmatured alcohol increased from 9,761,725 proof gal. to 20,325,529 proof gal. In 1944, the production of unmatured alcohol rose to 26,721,560 proof gal. and that of beverage spirits also rose to 8,502,038 proof gal., while in 1945 unmatured alcohol dropped to 19,263,005 proof gal. and beverage spirits rose to 16,708,576 proof gal.

There were also changes in the nature of the materials used for distilling. The use of wheat increased from 319,647,661 lb. in 1943 to 402,535,232 lb. in 1944, but dropped to 360,472,179 lb. in 1945. Wheat flour (alcomeal) increased from 3,855,803 lb. in 1943, to 77,268,410 lb. in 1944, but dropped to 73,443,114 lb. in 1945. The quantity of molasses used, dropped from 93,895,056 lb. in 1942 to 622,951 lb. in 1943 and 4,658 lb. in 1944, but rose to 4,021,965 lb. in 1945. The quantity of corn used was 22,970,249 lb. in 1943, 15,833,741 lb. in 1944 and 45,191,740 lb. in 1945.

Net Revenue from Liquor Control.—In connection with the provincial figures of net revenue shown in Table 7, it is essential to note that they include not only the net profits made by Liquor Control Boards or Commissions, but also additional amounts of revenue received for permits, licences, etc., which are often paid direct to Provincial Governments. In addition to these figures, the Federal Government, for the fiscal year ended Mar. 31, 1946, collected in excise duties, customs duties, excise taxes, licence fees, etc., $70,399,161 on spirits; $48,228,671 on malt and malt products and $2,607,232 on wines.*

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* These figures do not include sales tax, details of which are not available for separate commodities.

7.—Total Net Revenue Received by the Provincial Governments from Liquor Control, by Provinces, 1940-46

NOTE.—These figures are for provincial fiscal years ended on the following dates: N.S., Nov. 30; N.B., Oct. 31; Que., Apr. 30; Ont., Mar. 31; Man., Apr. 30; Sask., Mar. 31; Alta., Mar. 31; and B.C., Mar. 31.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	$	$	$	$	$	$	$	$
1940	2,284,229	1,655,739	7,572,121	11,051,912	1,781,089	1,706,357	2,937,226	4,456,948
1941	3,358,235	2,220,308	7,270,810	12,294,175	2,056,253	1,941,185	3,207,627	4,841,482
1942	4,885,365	2,950,957	9,474,417	15,068,065	2,740,498	2,407,066	3,897,175	5,928,444
1943	5,613,367	3,054,932	12,332,540	18,546,295	3,738,980	3,030,953	5,050,216	8,145,795
1944	6,738,081	3,497,089	14,034,564	21,024,903	3,831,368	3,661,301	5,356,107	6,946,254
1945	7,428,911	4,247,301	17,120,638	19,181,266	4,379,365	4,162,775	6,026,112	7,881,497
1946	9,020,665	6,890,562	23,095,957	30,373,016	6,101,352	6,605,448	8,248,814	11,194,187

Apparent Consumption of Liquor in Canada.—It is not possible to obtain accurate figures on Canadian consumption of liquor. Certain Liquor Boards do not publish figures to show sales on a gallonage basis, and even were such data available for all provinces they would not necessarily represent total consumption. For example, the quantities consumed by tourists reach a considerable amount. Further, there is no definite information regarding the illegal traffic in liquor, though there is reason to believe that such illicit business has, at times, reached fairly large proportions.

Obviously, figures of consumption are subject to error for the reasons mentioned above, and also because no consideration has been given to increases or decreases in the quantities held in stock by the Boards or by licensees.

Spirits.—Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown as "entered for consumption" are released from warehouses, duty paid, presumably for consumption for beverage purposes in Canada.

Malt Liquors.—Only a small part of the output of malt liquors is placed in warehouses. The available supply is, therefore, made up of (1) production; (2) changes in warehouse stock; and (3) imports.

Wines.—The apparent consumption of native wines is obtained by dividing the rates of excise tax into the total tax collections.

8.—Apparent Consumption of Beverage Spirits, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1924-36 are given at p. 532 of the 1941 Year Book.

Year	Entered for Consumption	Add Exports in Bond	Add Imports	Deduct Re-Exports of Imported Spirits	Deduct Total Domestic Exports	Apparent Consumption
	pf. gal.	pf. gal.	pf. gal.	pf. gal.	pf. gal.	pf. gal.
1937	1,900,714	5,280,885	1,126,440	462	5,289,344	3,018,233
1938	2,302,210	4,620,950	1,297,925	141	4,734,678	3,486,266
1939	2,299,474	1,956,358	1,265,909	121	2,087,956	3,433,664
1940	2,032,987	1,876,964	1,612,906	38	1,704,410	3,818,409
1941	2,371,633	3,327,365	1,479,606	42	3,463,772	3,714,790
1942	2,944,391	2,096,392	1,390,192	3,077	2,079,458	4,348,440
1943	3,445,872	[1]	1,284,116	69	[1]	4,729,919
1944	2,620,297	[1]	823,422	3	[1]	3,443,716
1945	2,676,482	[1]	1,043,709	273	[1]	3,719,918
1946	4,087,690	[1]	1,775,935	113	[1]	5,863,512

[1] The large quantities of non-potable alcohol produced and exported for war uses in the years 1943-46 necessitated a change in the method of estimating the consumption of beverage spirits. The exports in bond and the domestic exports do not now enter into the calculations. Details of the change are given in the Bureau of Statistics report "The Control and Sale of Alcoholic Beverages in Canada".

9.—Apparent Consumption of Beer, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1924-36 are given at p. 533 of the 1941 Year Book.

Year	Production	Add Quantities Entered for Consumption from Warehouses	Add Imports	Deduct Quantities Placed in Warehouses	Deduct Domestic Exports	Deduct Re-Exports of Imported Goods	Apparent Consumption
	gal.	gal.	gal.	gal.	gal.	gal.	gal.
1937	60,308,148	912,436	97,725	914,614	112,902	Nil	60,290,793
1938	67,361,250	765,187	104,778	809,089	156,053	"	67,266,073
1939	63,331,620	675,909	97,374	678,425	123,726	"	63,302,752
1940	66,496,129	646,399	92,873	753,067	192,612	32	66,289,690
1941	79,006,028	533,470	98,403	751,781	256,970	2	78,629,148
1942	101,081,682	755,456	86,122	6,777,839	5,639,946	Nil	89,505,475
1943	108,980,613	1,197,658	85,211	6,813,251	5,839,905	"	97,610,326
1944	104,062,427	726,817	61,634	7,536,054	6,604,977	"	90,709,847
1945	122,530,269	6,177,745	76,225	12,591,822	5,968,602	"	110,223,815
1946	138,941,170	2,596,574	26,550	6,910,528	4,567,667	"	130,086,099

10.—Apparent Consumption of Wines, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1924-36 are given at p. 533 of the 1941 Year Book.

Year	Native	Imported			Apparent Consumption, Native and Imported
	Apparent Consumption	Imports	Less Re-exports	Apparent Consumption	
	gal.	gal.	gal.	gal.	gal.
1937	2,693,456	472,887	173	472,714	3,166,170
1938	3,120,381	507,669	107	507,562	3,627,943
1939	3,010,981	450,953	67	450,886	3,461,867
1940	3,544,910	468,098	91	468,007	4,012,917
1941	4,310,295	502,354	35	502,319	4,812,614
1942	3,733,449	434,888	1,094	433,794	4,167,243
1943	4,192,903	434,699	35	434,664	4,627,567
1944	3,314,260	290,691	11,005	279,686	3,593,946
1945	3,409,303	303,153	Nil	303,153	3,712,456
1946	3,979,857	595,732	12	595,720	4,575,577

PART II.—THE MOVEMENT AND MARKETING OF COMMODITIES

Section 1.—Interprovincial Freight Movements*

Statistics on interprovincial trade are difficult to collect because there are no barriers to this trade. The only comprehensive statistics available are the loadings and unloadings of freight carried by the railways. The railway traffic is segregated into 76 classes of freight and the differences between loadings and unloadings are the imports and exports *by rail* for the respective provinces. But freight might be imported by rail and exported by water, such as western grain moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 1 must not be taken as a measure of total interprovincial trade: they indicate only the interprovincial movement of railway freight which is one aspect of that trade.

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* Revised by G. S. Wrong, Director, Transportation and Public Utilities Division, Dominion Bureau of Statistics.

1.—Railway Revenue Freight Movement, by Provinces, 1945 and 1946

Province	Loaded		Received from Foreign Connections		Totals Originated[1]	
	1945	1946	1945	1946	1945	1946
	tons	tons	tons	tons	tons	tons
Prince Edward Island	277,399	285,364	Nil	Nil	277,399	285,364
Nova Scotia	6,672,923	7,188,348	178,445	128,626	6,851,368	7,316,974
New Brunswick	3,480,801	4,111,623	858,218	779,234	4,339,019	4,890,857
Quebec	17,672,213	17,756,539	6,910,596	8,204,467	24,582,809	25,961,006
Ontario	36,522,406	34,227,479	33,034,888	28,698,888	69,557,294	62,926,367
Manitoba	6,242,308	6,352,089	315,467	429,650	6,557,775	6,781,739
Saskatchewan	13,534,717	9,976,153	850,890	938,113	14,385,607	10,914,266
Alberta	11,830,198	11,125,623	171,030	153,204	12,001,228	11,278,827
British Columbia	7,670,281	7,350,521	729,316	820,935	8,399,597	8,171,456
Totals	**103,903,246**	**98,373,739**	**43,048,850**	**40,153,117**	**146,952,096**	**138,526,856**
	Unloaded		Delivered to Foreign Connections		Totals Terminated[1]	
	1945	1946	1945	1946	1945	1946
	tons	tons	tons	tons	tons	tons
Prince Edward Island	453,748	502,724	285	739	454,033	503,463
Nova Scotia	5,647,916	5,933,567	1,856,105	1,113,324	7,504,021	7,046,891
New Brunswick	3,176,948	3,603,460	3,668,894	2,934,168	6,845,842	6,537,628
Quebec	19,363,172	20,556,766	10,879,151	9,296,459	30,242,323	29,853,225
Ontario	44,535,317	43,680,861	32,534,800	23,776,696	77,070,117	67,457,557
Manitoba	5,871,973	6,778,146	857,693	899,978	6,729,666	7,678,124
Saskatchewan	5,077,501	5,421,505	31,066	43,517	5,108,567	5,465,022
Alberta	3,881,815	4,268,690	37,638	10,718	3,919,453	4,279,408
British Columbia	6,305,258	6,163,610	2,649,100	3,573,291	8,954,358	9,736,901
Totals	**94,313,648**	**96,909,329**	**52,514,732**	**41,648,890**	**146,828,380**	**138,558,219**

[1] The freight originating and that terminating will not agree because that which originates within a certain year does not all terminate within the same year. On the other hand, some that terminated in 1946, for instance, originated within the previous year.

Section 2.—Post-War and Pre-War Levels of Food Consumption in Canada

A special study of consumption in Canada of the major foods was undertaken during the war years by the Agricultural Division of the Bureau of Statistics in recognition of the national and international significance of such information. While data on total consumption of certain commodities such as wheat, alcoholic beverages, meats, etc., have been available for a considerable period, it was found necessary to establish a per capita level of consumption of a wide range of products on a comparable basis.

The study has been continued during the past two years but, whereas the comparison during war years was between peacetime and wartime levels of consumption, the comparison is now made between pre-war and post-war levels.

The series in Table 2 represents the official estimates of yearly supplies of food moving into consumption, expressed in pounds per capita, for the years 1935-39 as an average for comparison with the post-war crop years ending June 30, 1946 and 1947 (the estimates for the year 1946-47 are preliminary and subject to revision).

The figures represent available supplies including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses. All calculations have been made at the retail stage of distribution, except meats for which the figures are worked out at the wholesale stage. The amounts of food actually eaten would be somewhat lower than indicated because of losses and waste occurring after the products reached the hands of the consumer. It should also be pointed out there are minor discrepancies in certain of the figures since storage stocks in the hands of retailers and consumers were not available. In the main, however, the figures represent the best summary of food consumption data that has been compiled for Canada.

All basic foods have been classified under 14 main commodity groups. Totals for each group have been computed using common denominators for the group, as for example: milk solids (dry weight) in the case of the dairy products group; fat content in the case of fats and oils; and fresh equivalent in the case of fruits. All foods have been included in their basic form that is, as flour, fat, sugar, etc., rather than in more highly manufactured forms.

2.—Per Capita Supplies of Food Moving into Civilian Consumption, Crop Years Ended June 30, 1946 and 1947, with Averages, 1935-39

Item	Specification	Pounds per Capita per Annum			Percentages of 1935-39 Average	
		1935-39	1946	1947[1]	1946	1947[1]
Dairy Products (Excluding Butter)—						
Fluid whole milk	Retail wt.	347·3	454·5	473·7	126·2	131·5
Fluid cream, *n.e.s.*	"	12·8	[2]	[2]	–	–
Cheese, cheddar	"	3·4	5·5	3·0	161·8	88·2
Cheese, other	"	0·3	0·3	0·5	100·0	166·6
Evaporated whole milk	"	6·1	13·3	11·8	218·0	193·4
Condensed whole milk	"	0·6	0·9	1·1	150·0	183·3
Malted milk	"	0·1	[3]	[3]	–	–
Dried whole milk	"	0·1	0·8	0·9	800·0	900·0
Dried skim milk	"	1·8	2·9	3·0	161·1	166·6
Condensed skim milk	"	0·4	0·9[4]	0·6[4]	225·0	150·0
Skim milk cheese	"	0·1	0·3	0·4	300·0	400·0
Skim and buttermilk	"	4·8	[3]	[3]	–	–
Milk in ice cream, *n.e.s.* (whole milk)[5]	"	13·0	21·7	18·0	166·9	138·5
Totals, Dairy Products	**Milk Solids**	55·8	**71·2**	**71·1**	**127·6**	**127·4**
Meats—						
Beef with bone	Carcass wt.	54·7	64·9	64·0	118·6	117·0
Veal	"	10·5	13·5	9·7	128·6	92·4
Lamb and mutton	"	5·6	4·4	4·6	78·6	82·1
Pork (excluding lard)	"	39·9	47·8	39·9	119·8	100·0
Offal	Edible wt.	5·8	5·6	4·5	96·6	77·6
Totals, Meats	**Carcass wt.**	**118·4**	**136·2**	**122·7**	**115·0**	**103·6**
Poultry, Game and Fish—						
Chickens	Retail wt., dressed	15·6	21·4	20·7	137·2	132·7
Other poultry	"	2·8	3·4	3·6	121·4	128·6
Game and rabbits[6]	"	4·3	4·0	3·9	93·0	90·7
Fish, Fresh, Frozen and Cured—						
Shellfish	Fresh, edible wt.	0·4	0·3	0·6	75·0	150·0
Other fish	Filleted wt.	8·8	6·5	6·8	73·9	77·3
Canned fish	Net wt., canned	2·7	2·4	2·3	88·9	85·2
Totals, Poultry, Game and Fish	**Edible wt.**	**26·9**	**26·6**	**26·8**	**102·3**	**103·1**
Eggs	**Fresh Egg equiv.**	**30·7**	**33·5**	**33·8**	**109·1**	**110·0**
Fats and Oils—						
Butter	Retail wt.	31·0	24·2	27·3	78·1	88·1
Lard	"	3·9	5·4	4·5	138·5	115·4
Shortening	"	10·6	7·5	7·8	70·8	73·6
Other edible fats and oils	"	1·8	1·4	2·1	77·8	116·7
Totals, Fats and Oils	**Fat content**	**41·4**	**33·9**	**36·5**	**81·9**	**88·2**

For footnotes, see end of table, p. 778.

2.—Per Capita Supplies of Food Moving into Civilian Consumption, Crop Years Ended June 30, 1946 and 1947, with Averages, 1935-39—continued

Item	Specification	Pounds per Capita per Annum			Percentages of 1935-39 Average	
		1935-39	1946	1947[1]	1946	1947[1]
Sugars and Syrups—						
Cane and beet sugar used for human consumption[7]	Refined wt.	94·7	67·9	72·9	73·7	79·2
Syrups, glucose, etc., used for human consumption[8]	Retail wt.	11·3[9]	11·1	15·0	98·2	132·7
Honey	"	2·4	2·7	2·3	112·5	95·8
Totals, Sugars and Syrups	**Sugar content**	**103·9[9]**	**77·0**	**85·0**	**75·9**	**83·8**
Potatoes—						
Potatoes, white	Retail wt.	192·3	194·9	217·3	101·4	113·0
Sweet potatoes	"	0·6	0·7	[10]	116·7	[11]
Totals, Potatoes	**Retail wt.**	**192·9**	**195·6**	**217·3**	**101·4**	**112·6**
Pulses and Nuts—						
Dry beans	Retail wt.	3·7	5·1	4·7	137·8	127·0
Dry peas	"	5·7	3·4	3·9	59·6	68·4
Peanuts	Shelled wt.	2·2	2·7	4·7	122·7	213·6
Treenuts	"	1·1	0·6	1·4	54·5	127·3
Totals, Pulses and Nuts	**Retail wt. incl. sh. wt. of Nuts**	**12·7**	**11·8**	**14·7**	**92·9**	**115·7**
Tomatoes and Citrus Fruit—						
Fresh tomatoes	Retail wt.	15·4	25·7	20·6	166·9	133·8
Canned tomatoes and tomato products	Net wt., canned	10·0	11·7	21·7	117·0	217·0
Fresh citrus	Retail wt.	25·1	46·3	46·4	184·5	184·9
Canned citrus	Net wt., canned	0·5	1·2	5·0	240·0	1,000·0
Totals, Tomatoes and Citrus Fruit	**Fresh equiv.**	**58·5**	**94·4**	**114·0**	**161·4**	**194·9**
Fruit, other than Citrus—						
Fresh fruit	Retail wt.	40·5	53·0	72·5	130·9	179·0
Canned fruit	Net wt., canned	6·3	3·7	7·8	58·7	123·8
Frozen fruit	Retail wt.	0·2	0·1	0·2	50·0	100·0
Dried fruit	Processed wt.	8·3	9·7	10·8	116·9	130·1
Totals, Fruit, other than Citrus	**Fresh equiv.**	**80·2**	**96·2**	**123·7**	**120·0**	**154·2**
Leafy, Green and Yellow Vegetables—						
Fresh—						
Cabbage and greens	Retail wt.	16·2	18·7	17·8	115·4	109·9
Carrots	"	15·4	13·7	12·9	89·0	83·8
Legumes	"	6·2	4·6	7·1	74·2	114·5
Canned	Net wt., canned	6·4	10·6	14·5	165·6	226·6
Totals, Leafy, Green and Yellow Vegetables	**Fresh equiv.**	**44·2**	**47·6**	**52·3**	**107·7**	**118·3**
Other Vegetables—						
Fresh	Retail wt.	29·8	43·7	38·6	146·6	129·5
Canned	Net wt., canned	4·4	3·7	4·6	84·1	104·5
Totals, Other Vegetables	**Fresh equiv.**	**34·2**	**47·4**	**43·2**	**138·6**	**126·3**
Grain Products—						
Flour (including rye flour)	Retail wt.	184·8	164·0	202·0	88·7	109·3
Oatmeal and rolled oats	"	7·3	9·9	7·4	135·6	101·4
Wheat, corn, and other cereals	"	7·4	7·8	7·9	105·4	106·8
Rice (milled)	"	4·3	2·5	1·4	58·1	32·6
Starch	"	2·2	1·9	2·2	86·4	100·0
Cornmeal	"	1·4	1·3	0·9	92·9	64·3
Pearl barley	"	0·3	0·7	0·6	233·3	200·0
Buckwheat flour	"	0·2	0·1	0·1	50·0	45·0
Tapioca, sago, and arrowroot	"	0·3	0·1	[10]	23·3	0·1
Totals, Grain Products	**Retail wt.**	**208·2**	**188·7**	**222·5**	**90·6**	**106·9**

For footnotes, see end of table, p. 778.

2.—Per Capita Supplies of Food Moving into Civilian Consumption, Crop Years Ended June 30, 1946 and 1947, with Averages, 1935-39—concluded

Item	Specification	Pounds per Capita per Annum			Percentages of 1935-39 Average	
		1935-39	1946	1947[1]	1946	1947[1]
Beverages—						
Coffee	Green beans	3·7	5·8	6·7	156·8	181·1
Tea	Primary distribution wt.	3·5	3·8	3·8	108·6	108·6
Cocoa	Whole beans	3·7	4·2	3·5	113·5	94·6
Totals, Beverages	**Primary Distribution wt.**	**10·9**	**13·8**	**14·0**	**126·6**	**128·4**

[1] Subject to revision. [2] Included with fluid whole milk. [3] Not available. [4] Includes evaporated skim milk. [5] Includes whole milk equivalent of cream used in ice cream. [6] Estimated by Department of Mines and Resources. [7] Includes sugar used in manufactured products reported elsewhere in table, but excludes sugar used for industrial non-food purposes. [8] Excludes syrups and glucose used for industrial purposes. [9] Revised since the publication of the 1946 Year Book. [10] Less than 0·05 lb. [11] Less than one-tenth of one per cent.

Section 3.—The Grain Trade

Subsection 1.—Governmental Agencies Regulating or Co-operating with the Grain Trade

The agencies exercising control of the grain trade in Canada are: the Board of Grain Commissioners, which administers the provisions of the Canada Grain Act, 1930; and the Canadian Wheat Board, which operates under the Canadian Wheat Board Act, 1935. An account of the organization and functions of the Board of Grain Commissioners, prepared by J. Rayner, Secretary of the Board, appears at pp. 481-482 of the 1941 Year Book.

THE CANADIAN WHEAT BOARD, 1939-46*

The Canadian Wheat Board operates under the Canadian Wheat Board Act which was passed on July 5, 1935. The Wheat Board first began to function in the autumn of that year. It could hardly be termed a sudden departure from previous methods of grain marketing. There had been Government boards in operation during the First World War and immediately thereafter, and, even more recently, the Federal Government had been active in the wheat market through the so-called stabilization measures of the period 1931-35.

The origin and operations of the Board are traced down to February, 1939, in an article which appears in the 1939 Year Book at pp. 569-580. The present article carries the record forward to December, 1946, and covers the critical years of the Second World War. During recent years the activities of the Canadian Wheat Board have been considerably widened becoming of great significance in the Canadian economy as well as in the international sphere.

The personnel of the Board as constituted at the time when the former article was written was as follows: Chief Commissioner, George H. McIvor; Assistant Chief Commissioner, R. C. Findlay; Commissioner, W. Charles Folliott. In those early years, an Advisory Committee was appointed, under Sect. 6 of the Act, of which the membership is given at p. 574 of the 1939 Year Book. Its services were dispensed with on Dec. 3, 1935. This Advisory Committee was not reconstituted until 1940 as noted on p. 783.

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* Prepared by C. B. Davidson, T. W. Grindley, W. G. Malaher and C. V. Parker of the staff of the Canadian Wheat Board, Winnipeg.

THE CROP YEAR, 1938-39

Summary

The crop year 1938–39 will be remembered as a period of political uncertainty and of world-wide surplus conditions. Since the initial price paid by the Board was 80 cents per bushel for No. 1 Northern in store at Fort William/Port Arthur and since realizable market prices were consistently well below this figure, there could not fail to be a sizeable loss on the Board's operations. In the late winter and early spring of 1939, political tension in Europe and unfavourable growing weather in the United States winter wheat belt were the dominant market factors. While prices remained generally low, there were spurts of buying that helped prices and permitted the Board to make good sales. Early in July, however, the picture changed and the Liverpool market descended to register all-time lows. The Winnipeg July future fell to 49⅞ cents on July 24. Board sales during this period were quite restricted.

Changes in the Canadian Wheat Board Act

During the 1939 session of Parliament, the Canadian Wheat Board Act was amended in several important respects.

(1) A section was added limiting Board purchases of wheat to 5,000 bushels from any one producer in any one crop year, with the further provision that the aggregate of Board purchases from any one farm or group of farms operated as a unit must not exceed 5,000 bushels in any one crop year. Penalties were provided for infractions of this limitation.

(2) The fixed initial price was established under the amendment at 70 cents for No. 1 Northern at either Fort William/Port Arthur or Vancouver. Previously, it was the responsibility of the Board to determine the initial price with the approval of the Governor in Council, and this price was only a Fort William/Port Arthur basis. In 1935-36 and in 1938-39, by regulation, the Board included Vancouver on the same basis as Fort William/Port Arthur.

(3) Previous legislation, whereby the Governor in Council could approve of the extension of the provisions of the Act to oats, barley, rye or flax was repealed.

(4) A section was added whereby the provisions of the Act shall apply *mutatis mutandis* to wheat produced in the Eastern Division, the initial price to be fixed by the Board, with the approval of the Governor in Council.

These amendments came into force on Aug. 1, 1939.

Exports

During the crop year, exports of Canadian wheat and wheat flour approximated 165,000,000 bushels. Despite the relatively higher prices ruling for wheat at the Lakehead, 39,470,915 bushels of wheat were exported via Pacific Coast ports, this wheat moving westward from the most favourable freight differential points. Nearly 1,000,000 bushels were also shipped out of Churchill.

Operations of the Board

Purchases from producers during the crop year amounted to 292,360,030 bushels and there was an unsold carryover of 86,539,554 bushels shown at July 31, 1939. This wheat was sold during the following crop year, 1939–40, but the account for the 1938 crop was not closed out until Apr. 24, 1942, when the final funds were received from the Department of Finance. The deficit resulting from the Board's operations in 1938–39 was then placed at $61,525,691.

The Crop Year, 1939-40

Summary

This first year of war was characterized by nervous markets, necessitating flexible policies to keep up with the changing conditions.

With the initial wheat price both East and West, set at 70 cents per bushel for top grades, the Board was again responsible for the handling of a large proportion of the Canadian wheat crop.

In chronological review of the year from the standpoint of prices and sales, it is evident that there was some improvement during August. On Aug. 24 and again on Aug. 29, sales of 5,000,000 bushels were made to the British Food (Defence Plans) Department. At the first of September, when war broke out, there was a rise of about 20 cents per bushel in wheat prices, bringing No. 1 Northern up to about 80 cents per bushel by Sept. 7—some 10 cents above the Board's initial price. The Board's position was uncertain because it lacked control of marketable wheat supplies, having only about 110,000,000 bushels of 1938 and 1939 crop wheat. However, good sales were made during this period of rising prices and good demand. In the last half of September both the price and demand fell and with the market price then approximating the Board initial price, deliveries to the Board increased, although farmers still held large quantities on storage tickets in the hope of a market rise. The Board's supply position being more secure, good sales were made in October although buying methods precluded any price advance from the 70-cent level. During this period and continuing into November, there were bullish crop reports from the United States and Argentina. At the end of November, No. 1 Northern was selling at 75¾ cents. By Dec. 18, this price had risen to 87¼ cents under good buying. During this month most of the farmers' deliveries were sold at the higher open-market prices. January was a period of lower prices but good sales were made, mostly to the Cereals Import Committee of the United Kingdom. Most of the January price decline was recovered in February and prices held steady in March. Another price advance took place during the first three weeks of April, bringing the May future up to 91⅛ cents on April 20. Large sales to the United Kingdom were made during this period. The German invasion of Denmark and Norway, beginning Apr. 9, removed two more wheat markets. The month of May was featured by the German invasion of the Low Countries and the Allied retirement from Norway. Good markets prevailed until May 10 but on May 11 a sharp price decline began, aggravated by the invasion of France on May 15. On May 18, at the request of the Board, trading in Winnipeg wheat futures was forbidden below the closing prices of May 17, namely, 70⅜, 71⅜ and 73⅝ for the May, July and October futures, respectively. In the remainder of the month, the price showed minor advances but market sales were limited. On May 31, a sale of 50,000,000 bushels in the form of October futures was made to the United Kingdom. June was a month of declining prices as the Germans over-ran France and began bombing the United Kingdom. Prices fell to the pegged levels and all country deliveries were sold to the Board. This condition persisted throughout July, but during this period exports of wheat continued to the United Kingdom, the exporters covering with the Board by taking back equivalent amounts of futures from the 50,000,000 bushel block sale. Negotiations for a further sale of 100,000,000 bushels began in July and were completed on Aug. 8.

Congestion developed in Canadian elevators during the crop year despite the Board's efforts to use all the available space. Ocean shipping was scarce and expensive, and had to be concentrated at St. Lawrence and Atlantic ports. About 10,400,000 bushels of wheat were shipped from Pacific ports compared with 39,500,000 bushels in 1938-39. Further shipments of 1,800,000 bushels were made from Churchill.

Acreage and Production

In 1939, 26,756,500 acres were seeded to wheat in Canada. This was the highest acreage since 1932, all of the increase having taken place in the Prairie Provinces. Total production of wheat was estimated at 520,623,000 bushels or approximately 160,000,000 bushels more than in the previous year.

Operations of the Board

Wheat.—*Western Division.*—During the crop year 342,400,000 bushels were delivered to the Board and 160,300,000 bushels of 1939 wheat were sold, leaving a balance of 182,100,000 bushels held by the Board at July 31, 1940.

The balance of the 1938 crop that had amounted to 86,500,000 on July 31, 1939, was sold during the crop year, the last sales of significance taking place in June and being part of the 50,000,000 bushel sale to the United Kingdom. Altogether, during the crop year, net Board sales amounted to 246,800,000 bushels.

Eastern Division.—The Board opened an office in Toronto and accepted deliveries of Ontario winter wheat at 70 cents per bushel for No. 1 grades, basis Montreal export rail freights. Deliveries amounted to about 4,125,000 bushels, all of which was sold within the crop year. A surplus of about $80,000 resulted and this was paid out to producers on their participation certificates.

Changes in Personnel

On Oct. 26, 1939, C. Gordon Smith of Winnipeg was appointed Assistant Chief Commissioner of the Board and R. C. Findlay assumed the position of Comptroller.

The Crop Year, 1940-41

Summary

The only real similarities between the 1939-40 and 1940-41 seasons were the initial price of 70 cents and the large wheat crops harvested in both years, with the preponderance of deliveries to the Board. Contrasts were far more in evidence:

(1) The futures market was used very little in 1940-41. Minimum prices remained in effect throughout the crop year and bulk sales were the main method of wheat disposal, covering 220,000,000 bushels.

(2) Delivery controls were made necessary by the addition of a large 1940 crop to the large remaining surplus from the previous harvest.

(3) There was a considerable improvement in exports of both wheat and wheat flour.

Changes in the Canadian Wheat Board Act

Rather extensive revisions of the Canadian Wheat Board Act, given Royal Assent on Aug 7, 1940, included:—

(1) The maximum membership of the Advisory Committee was increased in number from seven to eleven.
(2) The 5,000 bushel limitation on deliveries to the Board was removed.
(3) Provision was made for the making of an interim payment under certain conditions, and when such can be made without any possibility of loss or cost to the Government.

(4) Provision was made for storage payments on farm-stored wheat at a rate not greater than the established country elevator tariff rate.

(5) The Board was given power to regulate deliveries by producers at country mill and terminal elevators and loading platforms.

(6) The provision that the Board sell "continuously" was deleted. (Obviously, continuous sales are not possible under war conditions.)

(7) The penalty clauses were made more severe.

(8) The Board was made responsible for the collection of a processing levy not to exceed 15 cents per bushel on wheat utilized for human consumption. The levy also applies to imported wheat and wheat products, which may only be imported by permission of the Board. The proceeds of the levy go into the ordinary revenues of the Board. (Subsequently, the levy was fixed at 15 cents per bushel by Order in Council and Regulations framed for its collection.)

Acreage and Production

A further substantial increase in wheat acreage took place in 1940 when 28,726,200 acres were seeded in Canada. Total production was estimated at 540,190,000 bushels—a near record crop for the second year in succession.

Operations of the Board

Wheat.—*Western Division.*—The balance of the 1939 crop remaining for sale on July 31, 1940, amounted to approximately 182,000,000 bushels and during the crop year 1940-41, this amount was reduced by sales to approximately 115,000,000 bushels. As at July 31, 1940, with valuations as of that date, the 1939 crop account showed a deficit on the books of over $14,000,000.

Deliveries by producers to the Board on 1940 Crop Account amounted to approximately 395,357,000 bushels of which about 141,644,000 bushels were sold during 1940-41, leaving 253,713,000 bushels unsold at July 31, 1941. At that time, the 1940 Crop Account also showed an operating deficit, approaching $4,500,000.

Eastern Division.—With the initial price again fixed at 70 cents per bushel for No. 1 grades, basis delivered Montreal, the deliveries to the Board were much lower at about 1,333,000 bushels. This wheat was all sold within the crop year at a profit of nearly $100,000 that was distributed to the producers on their participation certificates.

Processing Levy.—A gross revenue of $5,966,792 resulted from the application of the processing levy (see Item 8, above) and, after deducting expenses of administration, a net revenue of $5,867,129 was credited to the 1940 Crop Account—Western and Eastern Divisions.

Delivery Quotas.—In order to divide the available elevator space as fairly as possible among the producers, delivery permits were made necessary for each farm. Quotas were established for the deliveries from each farm and as more space became available due to the shipping and disposal of grain, the quotas were gradually increased. Finally, with the co-operation of the producers and the elevator companies, it was possible to take delivery of all the marketable grain. Extensive building of temporary annexes to country elevators helped materially in expediting the deliveries. Farm storage payments, amounting to $6,147,524.03 were made to producers on all wheat delivered between Oct. 31, 1940 and July 31, 1941.

Advisory Committee

Acting under one of the 1940 amendments to the Canadian Wheat Board Act, the Government appointed an Advisory Committee of eleven members under the chairmanship of D. G. McKenzie to assist the Board. Six of the appointees represented the producers.

During the latter half of the 1940-41 crop year the Board and the Advisory Committee gave close study to the wheat position and made a series of recommendations to the Cabinet Wheat Committee, including limitation of wheat deliveries to the amount that could be sold at home and abroad, establishment of basic wheat acreages for delivery purposes for each western farm, and the use of delivery quotas.

The Crop Year, 1941-42

Summary

In 1941-42, the activities of the Canadian Wheat Board reflected the trend toward diversification of western grain production. The restrictive effect of the third year of war upon the international movement of wheat resulted in enlarged accumulations of surplus wheat in the four exporting countries—a surplus which increased from 635,000,000 bushels on July 31, 1939, to 1,430,000,000 bushels on July 31, 1942.

Exporting countries generally were concerned with problems of surplus wheat, problems of storage, and problems of financing wheat in all its aspects. Although Canada had supplied the bulk of the United Kingdom wheat requirements since the outbreak of war, exports of wheat had not been sufficient to take care of the large crops harvested in 1939 and 1940, with the result that the Canadian carryover had increased to record proportions on July 31, 1941, when year-end stocks in all positions amounted to 480,000,000 bushels.

Confronted with temporary abundance of wheat and a great need for expansion in production of live stock and live-stock products based upon increased feed grain production, the grain program for 1941-42 was the subject of intensive study on the part of the Federal Government, the Canadian Wheat Board and the Advisory Committee to the Canadian Wheat Board. There developed a common agreement that wheat deliveries must be restricted to the amount of wheat that could be sold at home and abroad during the crop year 1941-42 and that the accumulated reserve of wheat as at July 31, 1941, would be carried as a wartime reserve. At the same time, the need for increased production of feed grains was stressed in the grain program for 1941-42.

The 1941-42 Grain Program

Wheat.—The statutory fixed initial price of 70 cents per bushel basis in store Fort William–Port Arthur or Vancouver remained in effect.

The 1941-42 wheat delivery program was provided for in Order in Council P.C. 3849 of May 30, 1941. This program called for the limitation of wheat deliveries for the crop year 1941-42 to approximately 230,000,000 bushels for the whole of Canada. In the administration of the limitation on total marketings in the West, the Board established an "authorized acreage" for delivery purposes for each producer on the basis of 65 p.c. of his declared wheat acreage in 1940. At the same time, facilities were provided for the upward adjustment of authorized wheat acreages in the case of producers who had seeded an unusually low wheat acreage in 1940. Other producers had their authorized acreages lowered because of unusually high wheat acreages seeded in that year. The adjustment of these extremes modified the inequities arising from the use of a single base year.

The number of bushels per authorized acre to be marketed in 1941-42 was left open until the size and pattern of the 1941 crop were known.

In accordance with the powers granted to the Board by Sect. 7 (h) of the Canadian Wheat Board Act, as amended in 1940, farm storage payments were made to producers on the same basis as in 1940-41, namely at the rate of $\frac{1}{45}$ of a cent per bushel per day. Farm storage commenced on Oct. 8 and was paid on all grades of wheat delivered to the Board between Nov. 1, 1941, and July 31, 1942.

By Order in Council P.C. 5844, dated July 31, 1941, the section in the Canadian Wheat Board Act providing for the collection of the Processing Levy was repealed. In accordance with this Order in Council the Board discontinued the Processing Levy at the close of business on July 31, 1941, and in the 1941-42 crop year merely completed the collection of levies due to the Board up to and including July 31, 1941.

Special Measures.—During the crop year 1941-42 certain special measures were taken by the Federal Government in regard to wheat and flaxseed. These were:—

Ontario Winter Wheat.—On June 25, 1941, by Order in Council P.C. 4535, the price of 70 cents per bushel, basis delivered in Montreal, for No. 1 grades of Canada eastern winter wheat, was continued for another year.

On July 8, 1941, by Order in Council P.C. 5040, prices of No. 2 and No. 3 grades were fixed at 68 cents and 65 cents per bushel, respectively.

Owing to the small wheat crop in Ontario in 1941, the price of Ontario wheat rose far above the Board's initial price with the result that only a very small amount was delivered to the Board. Under the circumstances, the Government, by Order in Council P.C. 7700, dated Oct. 4, 1941, announced that the Canadian Wheat Board would accept Ontario winter wheat only in the event that the market price for No. 1 grades of Ontario winter wheat at country points fell below the price of 80 cents basis, export rail freights to Montreal. Since the price remained above the figure set under P.C. 7700, no deliveries to the Board were made subsequently and there were no operations to be reported.

Higher Price Level for Wheat Stocks.—On Mar. 5, 1942, a resolution appeared on the order paper of the House of Commons providing for "the payment of an increased rate per bushel of wheat delivered by producers". Pending official action, the Canadian Wheat Board issued a press announcement, which was brought to the attention of those concerned prior to the opening of the market on Mar. 6, 1942. The announcement read as follows:—

> "A resolution placed on the order paper for Mar. 5, 1942, indicates the Government's intention to increase the initial price of wheat. This is an official notification of our intention that all open wheat futures will be cleared on or before this date at the closing prices of Thursday, March 5th, that is May wheat futures at 79¼ cents and/or July wheat futures at 80⅜ cents. If this action is not taken until July 31st, suitable carrying charges will be allowed to holders of cash wheat for the elapsed period during the month of July. Unhedged cash wheat will be adjusted on the same basis. In the meantime holders of cash wheat as well as futures may continue to carry on with their normal business bearing in mind the above."

The result of this action was that persons holding cash wheat or wheat futures could not sell at prices higher than those ruling at the market close of Mar. 5, after allowing for carrying charges.

On Mar. 9, 1942, Order in Council P.C. 1803 was passed, giving the Canadian Wheat Board all the necessary powers to transfer all non-Board or open market stocks of Canadian wheat (Western Canada grain grades) to the new and higher price level. An important feature of the mechanism was the preventing of speculative profits accruing as a result of this decision. By the terms of the Order in Council, the Canadian Wheat Board was given the power, up to and including July 31, 1942, to buy actual wheat from persons other than producers, to control and adjust trading and contracts in Winnipeg wheat futures and to exercise any other powers necessary to give effect to the change from the lower to the higher price level.

Higher Price Level for Flaxseed Stocks.—On Mar. 5, 1942, Order in Council P.C. 1636 "froze" the stocks of flaxseed in Canada under the supervision of the Canadian Wheat Board. This step was taken because the necessary supply of vegetable oils for Canada and her Allies was seriously threatened by the spread of war in the Pacific area. A higher price was intended for 1942 production and control of existing stocks was a prerequisite to the establishment of the new policy.

Under Order in Council P.C. 1800, dated Mar. 9, 1942, (brought into effect on Mar. 19 by Order in Council P.C. 2166), the Canadian Wheat Board was given compulsory power to take possession of all commercial stocks of flaxseed in Canada and the Board became the sole agency to receive deliveries from producers. Futures or cash trading of flaxseed on any grain exchange or elsewhere in Canada was prohibited. The Board was empowered to pay fixed prices to producers established from time to time by Order in Council and to observe the ceiling of $1·64 for 1 C.W. Fort William in selling flaxseed for domestic use.

Maximum Prices of Grains.—The Board undertook the responsibility of acting as Administrator on behalf of the Wartime Prices and Trade Board in defining the maximum prices at which certain grains traded during the basic period Sept. 15 to Oct. 11, 1941.

Acreage and Production

As contemplated by the 1941-42 wheat program, including the introduction of bonuses for wheat acreage reduction, the acreage sown to wheat in Canada declined from 28,726,000 acres in 1940 to 21,882,000 acres in 1941, and wheat acreage in the Prairie Provinces declined from 27,750,000 acres to 21,140,000 acres—a reduction of about 24 p.c. Substantial increases in the area seeded to feed grains and flaxseed were reported.

Although the crop was seeded under favourable circumstances, a combination of drought and extremely high temperatures caused a rapid deterioration in the grain crops in Saskatchewan and Alberta during the latter part of June and the month of July.

Wheat production in Canada was 315,000,000 bushels, or 225,000,000 bushels less than in 1940. The production of all grains and flaxseed was 292,000,000 bushels less than in the previous year.

Marketings and Exports

During the crop year 1941-42, producers in Western Canada marketed 227,900,000 bushels of wheat as compared with marketings of 456,000,000 bushels during 1940-41, or about one-half of the volume of the preceding crop year. Unusually heavy deliveries in the last few weeks of the crop year materially affected the storage position at a large number of points in the West, and had definite repercussions upon available storage space and delivery quotas in the early part of the new crop year commencing on Aug. 1, 1942.

Overseas clearances and United States imports of Canadian wheat amounted to 176,081,138 bushels. Exports of wheat flour were maintained at a high level and were the equivalent of 45,926,003 bushels of wheat. Thus, total exports of wheat and wheat flour amounted to 225,828,434 bushels as compared with 231,206,246 bushels in the preceding crop year 1940-41. As in the previous crop year, the United Kingdom was the main purchaser of Canadian wheat and Canada provided a very large share of total British imports.

Operations of the Board

Wheat.—Of total marketings of 227,900,000 bushels in the West during the crop year 1941-42, producers delivered 100,000,000 bushels to the Board, or about 44 p.c. of their marketings, whereas in the previous crop year producers had delivered 395,000,000 bushels to the Wheat Board out of total marketings of 456,000,000 bushels.

The relatively small amount of wheat delivered to the Board in 1941-42 was a reflection of the fact that the market price for wheat remained steadily above the Board's price throughout the crop year.

The position of crop accounts (wheat) as at July 31, 1942, was as follows:—

Year	*Receipts from Producers*	*Inventory*[1] *July 31, 1942*	*Surplus (+) or Deficit (−) as at July 31, 1942*
	bu.	bu.	$
1938	292,400,000	—	−61,525,691·19
1939	342,400,000	28,600,000	−10,422,953·45
1940	395,400,000	119,200,000	− 1,364,026·48
1941	99,500,000	49,500,000	+ 4,809,054·50

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[1] Inventories valued at market price on July 31, 1942, basis in store Fort William/Port Arthur or Vancouver.

Total payments to producers for farm storage amounted to $648,648 during 1941-42, as compared with $6,147,524 paid in 1940-41. Farm storage payments in 1941-42 reflected the relatively heavy marketings previous to Nov. 1, the higher prices for wheat marketed outside the Board, and the smaller crop.

A sale of 120,000,000 bushels of Winnipeg wheat futures was made to the United Kingdom in November, 1941, and a further sale of 120,000,000 bushels was completed in May, 1942.

Special Accounts.—Under Special Account (Wheat), P.C. 1803 (see p. 785), the Board recorded a surplus of $1,360,964 as at July 31, 1942.

Under Special Account (Flaxseed), P.C. 1800 (see p. 785), a deficit of $67,908 was recorded as at the same date.

Delivery Quotas.—Since it was apparent early in the crop year that the marketable surplus of the 1941 crop in the West would not exceed the limit of marketings established by the Federal Government under its wheat policy for the crop year, the Board proceeded to operate its wheat delivery quota system on the basis in effect in 1940-41. On July 24, 1941, the Board announced that there would be no delivery quotas on oats, barley, rye and flaxseed and that producers could deliver these grains without restriction as to delivery point and without entering such deliveries in their 1941-42 permit books. On the same date, the Board announced that, effective Aug. 1, 1941, the first quota on wheat deliveries would be 5 bushels per "authorized acre". It was necessary to place restrictions on the marketing of wheat during the autumn because less than 90,000,000 bushels of space was available in country elevators on Aug. 1, 1941, and, even though the wheat crop was small, care had to be taken to see that each producer secured his fair share of the available storage space.

The general 5 bushel per authorized acre delivery quota remained in effect until Oct. 7. From this date on delivery quotas were increased rapidly at intervals, to 8, 12 and 15 bushels respectively. On November 18, the Board established a number of "open delivery points" and by December 4, all delivery points in the West were placed on an open delivery basis.

Little trouble was experienced with infractions of the delivery quotas during the short period the quotas were in operation.

Changes in Personnel

During the year, D. G. McKenzie, Chairman of the Advisory Committee, tendered his resignation on being appointed Chief Commissioner of the Board of Grain Commissioners for Canada. Mr. McKenzie was succeeded on the Committee by R. C. Brown of Pilot Mound, Manitoba, and Lew Hutchinson was elected Chairman of the Advisory Committee.

THE CROP YEAR, 1942-43

Summary

The outstanding feature of the grain situation in Canada in 1942-43 was the record production of all grains. With limited storage capacity and transportation available, grain marketing problems were unprecedented in intensity and in scope, but as the crop year progressed evidences of basic improvement in the Canadian grain situation were clearly revealed.

Early in 1943, the grain problem in Canada entered a new phase as improved demand became a noticeable factor. During the first three and one-half years of the War this problem in Canada was largely one of financing and storing vast quantities of grain, making the best use of facilities available for this purpose, and equitably rationing storage space among all producers. In the early months of 1943 the emphasis passed from storage difficulties to problems associated with meeting improved demand for Canadian grains with limited transportation available for the movement of grain. It was this development, along with the bountiful harvest of 1942, that provided the background for the operations of the Canadian Wheat Board during the crop year 1942-43. During the last half of the crop year prices of all grains advanced.

The 1942-43 Grain and Oilseed Program

Wheat.—*Western Division.*—The fixed initial price of wheat was increased from 70 cents per bushel to 90 cents per bushel basis No. 1 Northern wheat in store Fort William/Port Arthur or Vancouver, effective Aug. 1, 1942.

For the crop year 1942-43 marketings of wheat were limited to 280,000,000 bushels for the West, as compared with 230,000,000 bushels for all Canada in the previous crop year.

Eastern Division.—The fixed initial price of wheat in Ontario was established at 90 cents per bushel basis export rail freights to Montreal for No. 1 grades of

Ontario winter wheat, with the proviso that this price would only become effective in the event that the market price for No. 1 grades of Ontario winter wheat at country points fell below a price of 95 cents per bushel basis export rail freights to Montreal.

Wheat Products.—The Canadian Wheat Board was charged with the administration of the drawbacks paid in respect to flour or other human foods containing wheat sold and delivered in Canada between Aug. 1, 1942, and July 31, 1943, in accordance with Order in Council P.C. 9457, dated Oct. 16, 1942. In this connection the following press release was issued on Aug. 22, 1942:—

> The Wartime Prices and Trade Board announced late yesterday that arrangements have been made whereby Canadian flour mills will be provided with western wheat at a price appropriate to flour ceiling prices.
>
> The announcement said millers will continue to buy their wheat requirements in the open market at the higher price levels now prevailing, and will be eligible for a drawback representing the difference between the average price estimated to have been paid and the appropriate price on wheat ground for domestic use. The drawback will not be paid on flour exported from Canada.
>
> Price ceilings on flour are the highest flour prices prevailing during the basic period, September 15 to October 11, 1941. The price of wheat appropriate to these flour ceilings has been determined tentatively by the Wartime Prices and Trade Board as 77 3/8 cents per bushel for No. 1 Northern in store Fort William, subject to adjustment after investigation of milling costs by the Board.
>
> The drawback will be paid for flour delivered on and after August 1, 1942, pursuant to sales contracts made on and after that date. Unfilled contracts as at July 31 will not be eligible for drawback.
>
> The cost of the drawback is being absorbed by the Treasury, and it will be administered for the Treasury by the Canadian Wheat Board, as an arrangement separate from their other undertakings. Details as to procedure in applying for the drawback will be announced shortly by the Canadian Wheat Board.

Oats.—For the crop year 1942-43, the Canadian Wheat Board, under Order in Council P.C. 1801, was empowered to buy Winnipeg oats futures or cash oats at a price per bushel which would assure that producers in Western Canada would be continuously offered the following prices per bushel basis in store Fort William/Port Arthur: No. 2 Canada Western Oats—45 cents per bushel; Extra No. 3 Canada Western, No. 3 Canada Western, or Extra No. 1 Feed—42 cents per bushel; or No. 1 Feed—40 cents per bushel. The ceiling price of oats was 51½ cents per bushel basis in store Fort William/Port Arthur.

Barley.—For the crop year 1942-43, the Canadian Wheat Board, under Order in Council P.C. 1801, was empowered to buy Winnipeg barley futures or cash barley at a price per bushel which would assure that producers in western Canada would be continuously offered the following prices per bushel basis in store Fort William/Port Arthur: No. 1 Canada Western 2 Row or 6 Row, or No. 2 Canada Western 2 Row or 6 Row—60 cents per bushel; No. 3 Canada Western—58 cents per bushel; or No. 1 Feed—56 cents per bushel. The ceiling price of barley was 64¾ cents per bushel basis in store Fort William/Port Arthur.

Oats and Barley Equalization Funds.—On Apr. 6, 1943, the Federal Government announced the establishment of equalization funds in respect to oats and barley. The Canadian Wheat Board was empowered to assess equalization fees against permits issued for the export of oats and barley; the equalization fee being based upon the difference between domestic prices of oats and barley and prices obtainable for these grains in export markets, after allowing for transportation costs, normal forwarding costs and import duties.

The equalization funds so constituted, less expenses, were to be distributed after the close of the crop year among all western producers who marketed oats and barley between Apr. 1, 1943, and July 31, 1943.

Flaxseed.—Under Order in Council P.C. 1800, the Canadian Wheat Board, as the sole purchasing agency was empowered to purchase flaxseed on the basis of $2·25 per bushel for No. 1 Canada Western flax basis in store Fort William/ Port Arthur. Under Order in Council P.C. 7649, dated Aug. 28, 1942, the fixed price of $2·25 per bushel was established for No. 1 Canada Western flax produced in British Columbia basis Vancouver, and a similar fixed price for No. 1 Canada Eastern flax produced in the Eastern Division basis Montreal. Total Board sales during 1942-43 amounted to 9,000,000 bushels of which 3,800,000 bushels were sold on the domestic market at ceiling prices and 5,200,000 bushels were exported at an average price of $2·44 per bushel.

Soybeans.—The Canadian Wheat Board was empowered to buy soybeans at $1·95 per bushel for No. 2 Yellow Soybeans basis Toronto. During the year 90,900 bushels were purchased and re-sold on the domestic market at the purchase price.

Acreage and Production

The reduction in wheat acreage which occurred between 1940 and 1941 was fully maintained in 1942. The area sown to wheat in Canada in 1942 was 21,586,500 acres as compared with 21,882,200 acres in 1941. At the same time, expansion in feed grain acreages and flaxseed noted in 1941 was accelerated in 1942, amounting to nearly 4,000,000 acres over the corresponding acreages for 1941.

The 1942 growing season was favourable and uniformly bountiful crops were produced throughout the Prairie Provinces. However, unfavourable fall weather, particularly in Alberta, here a considerable amount of harvesting was delayed until spring, resulted in threshing of a considerable volume of tough and damp wheat which necessitated special action on the part of the Board. Wheat production was 241,000,000 bushels larger than in 1941 and correspondingly good returns were secured from the feed grain acreage. The record production of feed grains, however, coincided with unprecedented feed grain requirements both in Canada and in the United States and formed a sound foundation for further expansion in live-stock production in 1942-43.

In the case of wheat the accumulated carryover on July 31, 1942, amounted to 424,000,000 bushels which, added to the 1942 wheat crop of 556,000,000 bushels, provided a total wheat supply for the crop year of 1942-43 of 980,000,000 bushels—the largest stock of wheat ever available in Canada in any one crop year.

This carryover of wheat, along with small stocks of other grains, filled the greater part of storage space available in Canada on Aug. 1, 1942. On that date, after allowing for necessary working space there was available space in country elevators and in other elevators throughout Canada for about 35,000,000 bushels.

Marketings and Exports

Under the 1942-43 grain program, wheat deliveries were restricted to 280,000,000 bushels in the West. Owing to the late harvest, congested country elevators, transportation difficulties and the urgent need for feed grains, deliveries of wheat were relatively slow throughout the crop year and by July 31, 1943, 268,000,000 bushels had been delivered. The 15-bushel delivery quota was extended to Aug. 15

at nearly 1,900 delivery points, and after August 15 provision was made for special permits to be issued to those producers who still were unable to deliver their 15-bushel quotas owing to lack of space in country elevators. These extensions brought deliveries for the crop year 1942-43 to about 273,000,000 bushels.

Overseas clearances and United States imports of Canadian wheat in 1942-43 amounted to 154,929,217 bushels as compared with exports of 176,081,138 bushels in 1941-42. Exports of flour amounted to 12,575,215 barrels, or the equivalent of 56,588,469 bushels of wheat. Total exports of wheat and flour for the crop year 1942-43 amounted to 214,700,902 bushels as compared with 225,828,434 bushels during the previous crop year. The decline in exports of wheat is accounted for by the exceptionally large wheat crop harvested in the United Kingdom in 1942; smaller wheat shipments being partially offset by larger flour exports. The United Kingdom continued to be the main purchaser of Canadian wheat.

Operations of the Board

Wheat.—During the crop year 1942-43 deliveries to the Board amounted to 168,000,000 bushels, or 62 p.c. of total wheat marketings. Deliveries to the Board were heavily concentrated in the August-March period and were relatively light during the last four months of the crop year when open market prices were advancing.

The position of Crop Accounts (Wheat) as at July 31, 1943, was as follows:—

Year	*Receipts from Producers*	*Inventory*[1] *July 31, 1943*	*Surplus (+) or Deficit (−) as at July 31, 1943*
	bu.	bu.	$
1939	342,400,000	—	− 8,816,210·36
1940	395,400,000	63,900,000	+17,900,257·86
1941	99,500,000	22,500,000	+12,189,831·60
1942	167,500,000	87,500,000	+ 9,782,186·28

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[1] Inventories valued at market prices on July 31, 1943, basis in store Fort William/Port Arthur or Vancouver.

In June, 1943, a sale of 40,000,000 bushels of Winnipeg wheat futures was made to the United Kingdom. This was the only bulk sale to the United Kingdom during the crop year, a sale of 120,000,000 bushels to the United Kingdom having been made in May, 1942. In December, 1942, the Belgian Government in London purchased 7,000,000 bushels of wheat futures from the Board. During the crop year, the Royal Norwegian Government in Exile entered into negotiations for the purchase of 4,000,000 bushels of wheat.

Oats.—Pursuant to Order in Council P.C. 1801 minimum prices for oats were made effective by the Canadian Wheat Board throughout the crop year 1942-43. Open-market prices of oats ranged higher than the guaranteed minimum prices, except for the period Nov. 5 to Dec. 15, 1942, when the Board became a purchaser of oats to protect the minimum price levels. During this period the Board purchased 26,918,645 bushels of cash oats or oats futures which were re-sold by the Board within the crop year.

Barley.—Board operations in maintaining the specified minimum prices for barley followed the general pattern of action taken in respect to oats. The Board became the purchaser of barley on Oct. 29, 1942, and continued to purchase barley as required to maintain minimum prices until Dec. 21, 1942. During this period the Board purchased 19,709,429 bushels of cash barley or barley futures which were disposed of during the crop year. Stabilization measures by the Board in respect to oats and barley resulted in a surplus of $309,238.

Oats and Barley Equalization Funds.—Equalization fees on oats were assessed by the Board commencing Apr. 19, and as at July 31 the equalization fund on oats amounted to $1,165,053. This fund, less payment costs and P.F.A.A. levy, was paid out on oats deliveries between Apr. 1, 1943, and July 31, 1943, amounting to 46,555,288 bushels; the per-bushel payment from the fund was 2·4 cents.

The comparative price situation in Canada and the United States did not warrant the assessing of equalization fees on barley until May 28, 1943. As at July 31, 1943 the equalization fund on barley amounted to $481,061. This fund, less payment costs and the P.F.A.A. levy, was paid out on barley deliveries between Apr. 1, 1943, and July 31, 1943, amounting to 31,541,219 bushels; the per-bushel payment from the fund was 1·43 cents.

Special Accounts.—Special Account (Wheat) P.C. 1803 (see p. 785) showed a surplus of $1,990,310 as at July 31, 1943.

Special Account (Flaxseed) P.C. 1800 (see p. 785) showed a deficit of $1,978,308 as at the same date.

Price Ceilings.—The Board acted as Administrator of ceiling prices on whole grains for Western Canada on behalf of the Wartime Prices and Trade Board.

Delivery Quotas.—Administration of delivery quotas during 1942-43 reflected the following factors. In the first place, wheat marketings had to be restricted to 280,000,000 bushels under the 1942-43 grain program. Secondly, the record production of coarse grains yielded large marketable surpluses which had to be moved in the face of limited storage and transportation available. Thirdly, an urgent demand for feed supplies arose early in the crop year and quotas had to be adjusted to facilitate the transportation of these grains. The extent of the problem is indicated by the fact that, while at the beginning of the crop year space available in country elevators was about 120,000,000 bushels, total marketings of all grains and flaxseed for the crop year amounted to over 500,000,000 bushels.

Transportation.—The fall shipping program was designed to move sufficient feed grains to the Lakehead to meet current demand and to build up a reserve for movement eastward during the winter months. In order that available transportation might be utilized most effectively, the Board assumed control of the allocation of grain cars in the West on Oct. 15, 1942. Despite the Board's efforts to move a large volume of feed grains in the autumn months, the demand in the East was so great that a continuous shipping preference had to be maintained during the winter months and prior to the opening of navigation. In the winter months carloadings fell to lower than expected levels, with the result that delivery quotas could not be increased as quickly as desired and the movement of wheat had to be restricted in preference to coarse grains. In the spring and summer months a heavy movement of grain took place, making it possible for farmers to deliver 15 bushels of wheat per authorized acre throughout the West. However, the crop year ended with very little space available in country elevators to take care of new crop deliveries.

The Crop Year, 1943-44

Summary

While the world supply of wheat was adequate in 1943-44, transportation and shipping placed definite limits upon the volume that could be moved into export trade from surplus areas. In order to secure an equitable distribution of available supplies among importing countries, and in order to make the most effective use of inland transportation and ocean shipping, import demand was allocated to exporting countries through the Cereals Committee of the Combined Food Board functioning at Washington, D.C. Owing to her proximity to the United Kingdom and the United States, the two largest importing markets in 1943-44, Canada was called upon to supply grain to the limit of transportation available. As allocations of Canadian grain were made well in advance of the date of shipment, it was possible to effectively co-ordinate transportation and all other services with the object of securing the largest possible movement of Canadian grain, and its most effective distribution among importing countries. The co-ordination of transportation services and market demand for Canadian grain was supervised by the Emergency Grain Transportation Committee, established in October, 1943.

The 1943-44 Grain Program

Wheat.—The crop year 1943-44 commenced with a fixed initial price of 90 cents per bushel for No. 1 Northern wheat in store Fort William/Port Arthur or Vancouver, as provided by the Canadian Wheat Board Act.

On Sept. 27, 1943, the Federal Government announced an important change in wheat policy. The new policy involved the following actions:

(1) The discontinuance of trading in wheat futures on the Winnipeg Grain Exchange.
(2) The acquisition by the Board, on behalf of the Dominion Government, of all stocks of unsold cash wheat in Canada on the basis of the closing prices on Sept. 27, 1943.
(3) The raising of the fixed initial price from 90 cents per bushel to $1·25 per bushel for No. 1 Northern wheat basis in store Fort William/Port Arthur or Vancouver.
(4) The closing out of the 1940-41, 1941-42 and 1942-43 Wheat Board Crop Accounts on the basis of closing market prices on Sept. 27, 1943.
(5) The use of Government-owned wheat (Items 2 and 4 above) to meet requirements under Mutual Aid and to provide wheat for subsidized domestic purchasers.

This program was made effective until July 31, 1945. The new wheat policy was set forth in detail, under Order in Council P.C. 7942, dated Oct. 12, 1943. As in immediately preceding years, the Federal Government reserved the right to limit wheat marketings in the West; these were placed at 14 bushels per authorized acre. This limitation was extended to 18 bushels in February, 1944, and the limitation was removed late in the crop year as a result of the increased demand for Canadian wheat.

Oats and Barley.—Under Order in Council P.C. 4450, dated June 1, 1943, the Board continued to guarantee minimum prices for oats and barley and these grains were subject to the same maximum prices. (See p. 788.)

Oats and Barley Equalization Funds.—The Oats and Barley Equalization Funds were continued in 1943-44, but in view of the large domestic demand for these grains, the Federal Government guaranteed the Oats Equalization Fund to the extent of 10 cents per bushel, and the Barley Equalization Fund to the extent of 15 cents per bushel, with these guaranteed amounts payable to producers at the time of delivery. The guaranteeing of the two Equalization Funds was part of the Federal Government's program as announced on Sept. 27, 1943, and applied to all deliveries of oats and barley from Aug. 1, 1943.

Flaxseed.—The fixed price of flaxseed to producers for 1943-44 was increased from $2·25 to $2·50 per bushel basis 1 C.W. in store Fort William or Vancouver and No. 1 Canadian Eastern in store Montreal. During the crop year the Board sales amounted to 14,700,000 bushels, of which 4,800,000 bushels were sold domestically at the ceiling price of \$1·64 and 9,800,000 bushels were exported at \$3·10, both prices basis in store Fort William/Port Arthur.

Oilseeds.—The fixed price for soybeans for 1943-44 remained unchanged from the previous year. During the crop year the Board was empowered to buy sunflower and rapeseed from producers on the basis of 5 cents per pound and 6 cents per pound, respectively, top grades f.o.b. shipping points designated by the Board. Board purchases during the crop year were as follows: soybeans 1,637 bushels; sunflower seeds 4,554,465 pounds and rapeseed 981,476 pounds. All these quantities were re-sold during the year at the purchase prices.

Acreage and Production

Canada commenced the crop year 1943-44 with a carryover of 595,000,000 bushels. On an acreage of 16,849,700, 1943 wheat production totalled 284,000,000 bushels; thus, the carryover and new crop combined, provided 879,000,000 bushels of wheat available in Canada for the crop year 1943-44—about 100,000,000 bushels less than was available in 1942-43.

Exports

During the crop year exports, including wheat flour, amounted to 343,800,000 bushels as compared with 214,700,902 bushels in 1942-43. The increase in wheat exports is largely accounted for by United States imports of wheat for feed purposes during the latter half of the crop year. The United Kingdom continued to be the main overseas purchaser of Canadian wheat.

Operations of the Board

Wheat.—*Crown Account.*—Pursuant to Order in Council P.C. 7942, all unsold stocks of wheat in Canada, including the wheat remaining in the 1940-41, 1941-42 and 1942-43 Board Accounts (299,700,000 bushels) were taken over by the Federal Government through the Canadian Wheat Board (see p. 792). These stocks became known as Crown wheat and were used for Mutual Aid purposes and to provide wheat for the domestic market. Sales amounted to 111,400,000 bushels, leaving 188,300,000 bushels on hand on July 31, 1944. As at July 31, 1944, the Crown Wheat Account showed a deficit of \$10,125,327.

Order in Council P.C. 7942 provided for the closing out of the 1940-41, 1941-42 and 1942-43 Board Accounts. These Accounts showed a combined surplus of \$61,080,047 which was subsequently made available to producers (less payment costs and plus accumulated interest).

The position of Crop Account (Wheat) as at July 31, 1944, was as follows:—

Year	*Receipts from Producers*	*Inventory*[1] *July 31, 1944*	*Surplus as at July 31, 1944*
	bu.	bu.	$
1943	293,400,000	162,900,000	18,191,132

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[1] Inventory valued at the Board's fixed initial price as at July 31, 1944.

Eastern Division.—As prices for Ontario wheat remained at ceiling levels throughout 1943-44 no deliveries were made to the Board and no operations were recorded during the crop year 1943-44.

Wheat Products.—During 1943-44, the Board paid to millers and processors of wheat a total of $19,475,181 in drawbacks on wheat products pursuant to Order in Council P.C. 6602, Aug. 19, 1943.

Oats and Barley.—As prices for these grains remained at ceiling levels throughout the crop year, the Board was not required to take price-supporting action.

Oats and Barley Equalization Funds.—Equalization fees levied on oats exports exceeded advance equalization payments made to producers, and the Oats Equalization Fund showed a surplus of $8,806,339 as at July 31, 1944, which was subsequently made available to those producers who received advance payments from the Oats Equalization Fund. In the case of barley, advance equalization payments made to producers exceeded the proceeds of equalization fees assessed on exports. Consequently, the Barley Equalization Fund showed a deficit of $2,063,257 as at July 31, 1944, and there was no further payment from the Barley Equalization Fund on 1943-44 marketings.

Delivery Quotas.—In 1943-44 the delivery quota system was highly important. The crop year commenced with general congestion in country elevators. It was inevitable, therefore, that very low delivery quotas would have to be established in the initial stages of the marketing season. On Aug. 16, 1943, the Board established the first delivery quotas at 3 bushels per authorized acre for wheat, 5 bushels per seeded acre for oats and barley, 3 bushels per seeded acre in the case of rye. By the end of October about one-half of the delivery points in the West were still on a 3-bushel quota.

The emergency shipping program in November drew heavily upon stocks in Manitoba and eastern Saskatchewan, and permitted a general adjustment in wheat delivery quotas.

Owing to the necessity of large shipments of feed grains to eastern Canada and the United States during the winter months, the general quota on oats and barley was increased to 10 bushels per seeded acre on Dec. 8, 1943.

On Mar. 23, 1944, the general quota on oats, barley and rye was increased to 15 bushels per seeded acre. On Apr. 16, 1944, the general quota on oats was increased to 20 bushels per seeded acre, and quota restrictions on the marketing of barley and rye were removed. Three days later restrictions on oats deliveries were removed entirely.

On Mar. 31, 1944, over 1,700 delivery points had wheat delivery quotas of 18 bushels per acre while at the end of April all delivery points were on that basis. In accordance with Order in Council P.C. 4130, dated June 1, 1944, open delivery quotas were established, effective on the same date.

Under delivery quotas established in 1943-44 about 570,000,000 bushels of grain passed from farms to country elevators, and in addition, country elevator space available for deliveries was increased by about 100,000,000 bushels between Aug. 1, 1943, and Aug. 1, 1944, thereby easing the country storage problem for 1944-45.

Transportation.—Early in 1943-44 it was apparent that the transportation problem consisted of two main elements:—(1) The urgency of securing a substantial increase in transportation available for the movement of grain in order to keep pace with the increased demand for Western grains, especially in view of the fact that the bulk of 1943-44 grain supplies was in country elevators or on farms; and (2) The necessity of controlling carloadings in order that a broad demand for wheat, oats, barley and flax could be met, and that shipments of each grain to terminal markets be made in proper relationship to current demand.

The physical problem of providing adequate transportation in 1943-44 received the prompt attention of the Transport Controller and the railroads. Transportation available for the movement of grain was practically doubled in 1943-44 as compared with 1942-43. It was this shipping record on the part of the railways which provided the basis of the record commercial disappearance of grains in 1943-44 and which, at the same time, created over 100,000,000 bushels in available country elevator space within the crop year.

During the greater part of the crop year, it was necessary for the Board to control carloadings between various grains at country points. There was an exceptional demand for all types of grain throughout the crop year, consequently, it was necessary to maintain carloadings at country points in proper relationship to the over-all demand. Within the crop year it was necessary from time to time to preference the shipment of feed grains to meet emergency demands, and at other times, most cars had to be used for the movement of wheat.

Changes in Personnel

In December, 1944, C. Gordon Smith resigned as Assistant Chief Commissioner of the Board, D. A. Kane was appointed Assistant Chief Commissioner to succeed Mr. Smith, and C. E. Huntting was appointed to fill the vacancy on the Board.

In June, 1943, W. C. McNamara, the Board's Supervisor of Transportation, was appointed the Board's representative in Washington, D.C. Large sales of Canadian grain to the United States, and the concentration of wartime activities in connection with grains in Washington, D.C., made it advisable for the Board to have a representative in that City. In addition to representing the Board, W. C. McNamara represented Canada on the Cereal Committee of the Combined Food Board, and assisted in the work of that Committee.

The Crop Year, 1944-45

Summary

The Board continued throughout the crop year of 1944-45 to administer a broad program relating to wheat, coarse grains and oilseeds, the major outlines of which remained substantially unchanged from the program of the preceding crop year.

Within the framework of this policy, there were significant changes in the marketing and transportation problems dealt with by the Board. In the preceding crop year there was a very heavy movement of western grains to the United States and to Eastern Canada for feed purposes. In 1944-45 wheat import requirements of the United States were greatly reduced and the movement of feed grains and low-grade wheat to Eastern Canada was somewhat smaller. The predominant movement of wheat in 1944-45 was eastward through Atlantic ports to the United Kingdom, Continental Europe and the Mediterranean area. As a consequence, a very high percentage of grain shipped from country elevators passed through Fort William and Port Arthur, and through intervening facilities to the Atlantic seaboard. Shipments to and from the Lakehead reached the highest levels in the history of the Canadian grain trade. This record and highly concentrated movement was not accomplished without recurring problems in respect to transportation and the maximum use of elevators and available port capacities.

With the liberation of progressively larger areas of Europe, the function of the Cereals Committee of the Combined Food Board in programming available export supplies of wheat to the various importing countries became increasingly important and complex. The work of this Committee contributed in substantial measure to the efficient planning of the maximum movement of Canadian grain.

The crop year of 1944-45 coincided with the final phase of the War in Europe. It is appropriate here to set forth the broad features of the Canadian wheat position during the years of the conflict, in order that developments of the crop year 1944-45 may be seen in proper relationship to the larger wartime experience. The following statement shows initial stocks, annual production, total supplies and the disposition of supplies for the ten-year period prior to the war and for the six-year wartime period:—

		Annual Supplies		*Annual Disposition*		
Crop Year	*Initial Stocks*	*Annual Production*	*Total Supplies*	*Domestic Requirements*	*Exports*	*Year-end Stocks*
			(million bushels)			
Av. 1929-30 to 1938-39.	135	309	444	110	199	135
1939-40..............	103	521	624	131	193	300
1940-41..............	300	540	840	129	231	480
1941-42..............	480	315	795	145	226	424
1942-43..............	424	557	981	171	215	595
1943-44..............	595	284	879	179	344	356
1944-45..............	356	417	773	172	343	258
Av. 1939-40 to 1944-45.	376	439	815	154	259	402

It will be noted that in the first four crop years of the War, exports of Canadian wheat (including flour) ranged from 193,000,000 bushels to 231,000,000 bushels—only slightly above or below the average for the ten pre-war years. Of the four crops harvested during the same years, three yielded over 500,000,000 bushels. Exports and rising domestic requirements fell far short of absorbing the phenomenal production of the 1939-42 period and, consequently, year-end stocks rose to a level of 595,000,000 bushels on July 31, 1943. This reserve stock of wheat not only filled the greater part of permanent storage capacity in Canada and temporary capacity erected during the War, but nearly 200,000,000 bushels were stored on farms.

In the final two crop years of the war period, crops fell off to an average of 350,000,000 bushels, and at the same time the demand for Canadian wheat increased sharply. During the crop year 1943-44, the United States imported about 160,000,000 bushels of Canadian wheat to supplement feed supplies. Although the United States demand subsided in the following crop year, it was more than offset by increased demand for wheat from overseas countries. In the two crop years ending July 31, 1945, Canada provided importing countries with 687,000,000 bushels of wheat (including flour), or an average of 28,600,000 bushels each month from Aug. 1, 1943 to July 31, 1945.

In spite of the heavy outward movement in the latter stages of the War and in the early post-war months, the carryover on July 31, 1945, was 258,000,000 bushels as compared with the wartime peak of 595,000,000 bushels and the ten-year pre-war average of 135,000,000 bushels. Thus, on July 31, 1945, there remained a substantial volume of wheat from our wartime reserve, which, along with the 1945 crop, was destined to play an important part in meeting the needs of the importing countries during the transition from war to peace. The increase in the demand for

Canadian grains during the later stages of the War is shown by the following statement giving the disappearance of commercial stocks of Canadian grains* for the crop years 1939-40 to 1944-45:

	Commercial Disappearance					
Crop Year	*Wheat*	*Oats*	*Barley*	*Rye*	*Flax*	*Total*
			(million bushels)			
1939-40	241	40	23	3	1	308
1940-41	273	34	22	4	3	336
1941-42	280	33	26	7	5	351
1942-43	270	92	63	4	9	438
1943-44	428	136	91	9	15	679
1944-45	423	141	87	7	8	666

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* Including grain shipped to Eastern Canada and British Columbia under the Freight Assistance Policy, but not including all other grain for farm use.

The 1944-45 Grain Program

Wheat.—The wheat program announced by the Federal Government on Sept. 27, 1943, was made effective until July 31, 1945. Only two important changes were made in wheat policy in 1944-45. These changes concerned the supply of wheat for Crown Account and the supply of wheat for the domestic market.

Western Division.—In the regulations covering the operations of the Board for 1944-45 no limitation on deliveries of wheat in the West was stipulated, pending the outcome of the 1944 crop. It was subsequently decided that, in view of expanding market demand and the extent of 1944 production of grains, no over-all limitation on wheat marketings was necessary.

Eastern Division.— On Dec. 2, 1941, a ceiling of \$1·26 per bushel for Ontario winter wheat had been established and prices remained at the ceiling from that date forward. When on Sept. 27, 1943, the fixed initial price of western wheat was increased from 90 cents to \$1·25 the Board, in accordance with Sect. 14 of The Canadian Wheat Board Act, would have felt duty bound to make a corresponding increase in the price of Ontario winter wheat. However, with a ceiling of \$1·26 per bushel basis in store Montreal, it was recognized that there was little justification for Board operation in respect to Ontario winter wheat on the basis of \$1·25 per bushel.

Under the circumstances, the Federal Government provided the following policies applicable to Ontario winter wheat during the crop year 1944-45:—

(1) The Board was exempted from carrying out its obligations under Sect. 14 of the Canadian Wheat Board Act (Order in Council P.C. 5640, July 31, 1944).

(2) The Board was charged with the responsibility of maintaining a floor price of \$1·25 per bushel for top grades of Ontario winter wheat, basis in store Montreal (Order in Council P.C. 5640, July 31, 1944).

(3) The Wartime Prices and Trade Board passed an Order restricting dealers' margins to 3 cents per bushel (Order No. 423, July 27, 1944).

(4) The Federal Government recognized that Ontario producers, marketing wheat in 1944-45, were entitled to share in export prices obtainable for flour made from Ontario winter wheat to the extent that these prices were in excess of domestic ceiling prices plus forwarding costs. Under Order in Council P.C. 6848, dated Sept. 1, 1944, the Ontario Wheat Flour Equalization Fund was established, and it became the responsibility of the Board to assess equalization fees against Ontario wheat flour sold for export. The equalization fees established by the Board were approximately equivalent to the difference between Canadian prices and export prices for Ontario wheat flour, allowing for necessary forwarding costs. The fee, in practice, was variable, depending upon going export prices. The first Ontario Wheat Flour Equalization Fund was closed on June 30, 1945.

Wheat Products.—Under Order in Council P.C. 7319, dated Sept. 19, 1944, the Canadian Wheat Board was charged with the administration of drawbacks paid in respect to flour and other human foods containing wheat, sold and delivered in Canada between Aug. 1, 1944, and July 31, 1945.

Oats and Barley.—Under Order in Council P.C. 5998, dated July 31, 1944, the Board continued to guarantee minimum prices on the same basis as in 1943-44. Maximum prices remained the same. (See p. 788.)

Oats and Barley Equalization Funds.—Under provisions of Order in Council P.C. 5998, dated July 31, 1944, the Board continued to administer the Barley Equalization Fund and the Oats Equalization Fund. As in the preceding crop year, the Federal Government guaranteed the Equalization Funds to the extent of 10 cents per bushel on oats and 15 cents per bushel on barley. Payments to the extent of the guarantee were made to producers at the time of delivery and were known as Advance Equalization Payments. Provision was also made for Advance Equalization Payments to producers in connection with farm-to-feeder or farm-to-farm sales.

Flaxseed.—Apart from an increase in price to producers, no changes were made in flaxseed policy for 1944-45. The fixed price, basis in store Fort William, Vancouver and Montreal, was increased from $2·50 to $2·75 per bushel. Total sales during the year amounted to 8,300,000 bushels, of which 4,600,000 bushels were for domestic account and 3,700,000 bushels were for export. The export price was $3·10 per bushel basis in store Fort William/Port Arthur.

Oilseeds.—Under Order in Council P.C. 4131 of June 1, 1944, the Board continued to guarantee minimum prices of sunflower seed and rapeseed on the same basis as in 1943-44. By Order in Council P.C. 8060 of Oct. 20, 1944, the Board's power to purchase rapeseed at the established prices was limited to the Western Division. In the 1944-45 crop year, Board purchases of rapeseed were 3,485,845 pounds and of sunflower seed 4,486,272 pounds. The carryover of sunflower seed from the 1943 crop amounted to 824,827 pounds. All rapeseed stocks were sold during the year but, at July 31, 1945, there remained unsold 4,351,500 pounds of sunflower seed.

Acreage and Production

The 1944 wheat acreage was 23,284,000 acres. This acreage represented a substantial increase over the area seeded to wheat in the previous year. Wheat production totalled 417,000,000 bushels which, added to the July 31, 1944, carryover of 356,000,000 bushels, gave total supplies for the crop year of 773,000,000 bushels—about 106,000,000 bushels less than was available in 1943-44.

Wheat and Flour Exports

Overseas clearances and exports of Canadian wheat in 1944-45 amounted to 280,000,000 bushels as compared with 283,000,000 bushels in 1943-44. Flour exports continued at a very high level and amounted to the equivalent of 63,000,000 bushels as compared with 61,000,000 bushels in 1943-44. Total exports of wheat and flour for the crop year 1944-45 amounted to 343,000,000 bushels as compared with 344,000,000 bushels in 1943-44.

The direction of exports of Canadian wheat in 1944-45 changed materially from that of 1943-44. During 1944-45 the United Kingdom took nearly one-half of Canadian exports of wheat. United States imports of Canadian wheat dropped to 42,000,000 bushels as compared with 160,000,000 bushels in the previous crop year.

Other large importers of Canadian wheat in 1944-45 were France, Greece, Portugal, India, Belgium and Eire. In the main, the export movement of Canadian wheat in 1944-45 was to European destinations, reflecting significant international developments during the period under review.

Operations of the Board

Wheat.—With due regard to the volume of wheat that was being carried in Canada during the crop year 1944-45, the Board felt that its duty was to market every possible bushel that could be sold under existing conditions. This sales policy was more than justified by the fact that, in the final year of the War in Europe, demand for Canadian wheat was urgent and failure to meet that demand would have had far-reaching repercussions.

In 1944-45 the Board had the following wheat available:—

(1) The balance of Crown wheat supplies, acquired on Sept. 27, 1943, in accordance with the Order in Council P.C. 7942.
(2) The balance of wheat delivered to the Board by producers in 1943-44.
(3) Wheat delivered to the Board by producers during the crop year 1944-45.

The Crown wheat supply was sufficient to meet requirements up to Jan. 16, 1945. These requirements included domestic needs, supplies for United Kingdom and other countries receiving mutual aid and supplies for any other overseas distribution by the Federal Government. The Crown wheat supply was replenished by Order in Council P.C. 1116 dated Feb. 20, 1945,* which directed the Board to proceed as follows:—

(1) To purchase for Crown Account sufficient wheat from the 1943 and 1944 Crop Accounts to cover Mutual Aid sales by Crown for the period Jan. 16, 1945, to Feb. 28, 1945, at Class II prices prevailing on the date of each Mutual Aid sale.
(2) To purchase for Crown Account sufficient wheat from the 1943 Crop to cover domestic sales by Crown for the period Jan. 16, 1945, to Feb. 28, 1945, at $1·25 per bushel, basis No. 1 Manitoba Northern in store Fort William/Port Arthur.
(3) To purchase for Crown Account 100,000,000 bushels of wheat from the 1943 and 1944 Crop Accounts at $1·43 per bushel for No. 1 Manitoba Northern, basis in store Fort William/Port Arthur, to cover Mutual Aid sales contracted after Feb. 28, 1945. (These purchases were made as at Mar. 1, 1945, at the prevailing Class II price of $1·46 per bushel for No. 1 Northern on Jan. 29, 1945. The spread of 3 cents between the Class II price and the purchase price was allowed to Crown Account in lieu of ultimate carrying charges incurred between Mar. 1, 1945, and the final date of each Mutual Aid sale.)

From Aug. 1, 1944, substantial sales of wheat were made from the 1943-44 Board Account at the Board's Commercial or Class II price. Order in Council P.C. 1116 provided for the disposal of further stocks of wheat in the 1943-44 Board Account: (1) by stipulating that wheat from the 1943-44 Board Account should be used to provide domestic requirements from the date Crown wheat was exhausted until July 31, 1945; and (2) by providing for the sale of stocks of 1943-44 wheat to Crown Account for Mutual Aid purposes. As a result of this arrangement, final accounting in respect to the 1943-44 Board Account could not be completed until domestic sales to July 31, 1945, were finalized and until many adjustments arising from wartime sales were made. On wheat provided for the domestic market out of the 1943 Crop Account, producers neither gained nor lost, as the Board sold such wheat at initial cost and reimbursed the 1943 Crop on an average per bushel carrying charge rate for all domestic sales. The arrangement in respect to supplying the domestic market was within the general price control policy of the Federal Government as in effect at that time.

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* Effective date amended to read "close of business, Feb. 28, 1945" by Order in Council P.C. 4647, July 5, 1945.

During 1944-45 the Board's Class II price applied to countries not receiving Mutual Aid and to the United Nations organizations operating on a cash basis. The Class II price ranged between \$1·34 to \$1·38 per bushel, basis in store Fort William for the first two months of the crop year; it ranged between \$1·38 to \$1·48 until February, 1946. In March and April a small increase to \$1·53-\$1·54 occurred and from May to the end of July \$1·55 per bushel was the ruling price.

Eastern Division.—As prices for Canada Eastern winter wheat remained at ceiling levels during 1944-45, it was not necessary for the Board to take delivery of wheat pursuant to maintaining the floor price.

The Ontario Wheat Flour Equalization Fund for 1944-45 was closed out as at June 30, 1945, resulting in a surplus payable to producers of \$198,318 before making provision for the costs of final payment.

Crown Account.—The Crown Account showed a deficit of \$25,861,867 as at July 31, 1945, of which \$10,125,327 was funded by the Federal Government on Apr. 30, 1945.

The position of Crop Account (Wheat) as at July 31, 1945, was as follows:—

Year	*Receipts from Producers*	*Inventory*[1] *July 31, 1945*	*Surplus as at July 31, 1945*
	bu.	bu.	\$
1943	293,400,000	–	36,436,170
1944	352,400,000	161,400,000	28,653,391

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[1] Inventories valued at the Board's fixed initial price as at July 31, 1945.

Wheat Products.—Pursuant to its duty of administering drawback payments on wheat products sold and delivered for human consumption in Canada (see p. 798), the Board, out of funds provided by the Dominion Treasury, paid out \$18,296,293 to July 31, 1945, in respect to the 1944 Drawback Account.

Oats.—During the crop year 1944-45 price-supporting action involved purchases of oats futures totalling 896,000 bushels, which were re-sold during the crop year at a small profit.

During the crop year 85,800,000 bushels of oats (including processed oats) were exported as compared with 74,700,000 bushels for 1943-44. Of these totals, 69,700,000 bushels in 1944-45 and 71,900,000 bushels in 1943-44 went to the United States. During the crop year shipments under the Freight Assistance policy amounted to 42,600,000 bushels—a reduction of about 9,000,000 bushels from the level of 1943-44.

Barley.—As barley prices remained at ceiling levels throughout the crop year, it was not necessary for the Board to support the price of barley.

During the crop year 39,400,000 bushels of barley were exported as compared with 36,100,000 bushels in 1943-44. Of these amounts, 35,800,000 bushels in 1944-45 and 35,800,000 bushels in 1943-44 went to the United States. As in previous years, barley exports to the United States were largely of types suitable for malting in that country. Shipments under the Freight Assistance policy were 30,500,000 bushels, approximately 7,500,000 bushels less than in the preceding crop year.

Oats and Barley Equalization Funds.—Increased eastern production of feed grains, relative to demand, reduced the volume of shipments under the Freight Assistance program and released greater quantities of Western oats and barley for export. The export market absorbed almost 60 p.c. of total oats deliveries during the crop year, and slightly more than 50 p.c. of barley deliveries.

Advance equalization payments made to producers exceeded the amounts collected as equalization fees levied on oats exports, and the resultant deficit in the Oats Equalization Fund was $1,421,431. On the other hand, the proceeds of equalization fees assessed on barley exports exceeded advance equalization payments to producers by $6,044,880. This surplus in the Barley Equalization Fund made possible a further payment of 7·59 cents per bushel to those producers who received advance payments from the Barley Equalization Fund.

The deficit in the Oats Equalization Fund arose from a sharp decline in the level of equalization fees, which was only partially offset by the moderate increase in the volume of exports. Since the two Funds were separate and distinct, the deficit in the Oats Equalization Fund did not affect the distribution of the surplus in the Barley Equalization Fund. The Oats Fund deficit was absorbed by the Dominion Government.

Price Ceilings.—The Board continued to act as administrator of ceiling prices on whole grains on behalf of the Wartime Prices and Trade Board.

Delivery Quotas.—It was necessary to regulate deliveries at country elevators for a considerable part of the crop year, in spite of the fact that available empty space on Aug. 1, 1944, amounted to about 100,000,000 bushels. Rye and flax were not subject to delivery restrictions. Early in September, restrictions on barley were removed, and on May 4, 1945, an open wheat quota was established at all delivery points.

At various times during the crop year 1944-45 it was considered necessary to concentrate available transportation in areas most favourably situated in respect to the Lakehead, in order to meet an extremely large and urgent demand. This policy resulted in the deferring of necessary grain shipments from areas in northern Alberta and northern Saskatchewan, and made necessary the continuance of relatively small delivery quotas on oats and wheat in these areas until early in 1945.

The Crop Year, 1945-46

Summary

The major task of all wheat exporting countries in 1945-46 was to provide maximum quantities of wheat and flour to assist importing countries through the first full crop year following the end of the War. In that effort Canada played a leading part and for the third successive year provided wheat exports (including flour) in excess of 340,000,000 bushels. Into the effort of 1945-46 went the last of Canada's wartime reserves of wheat and in the latter part of the crop year exports were determined by the volume of wheat that producers made available at country elevators.

The exceedingly urgent demand for breadstuffs during the crop year was due not only to the normal requirements of importing countries and special demands following the War, but also to the effects of a devastating drought in southern Europe and North Africa.

The full impact of this food position confronted the Cereals Committee of the Combined Food Board early in the crop year. The severity of the crisis and the threat of mass starvation on a large scale called for a major, co-ordinated effort on the part of Canada and the United States. The effectiveness of this effort is indicated by the fact that in the year ended June 30, 1946, Canada and the United States together exported about 750,000,000 bushels of wheat (including flour) which constituted the largest wheat exports in any twelve-month period in the history of the North American continent. In addition to these supplies of wheat, both countries supplied quantities of other grains for human consumption.

Canada commenced the new crop year with a favourable position for a large export movement of wheat during the first half of the crop year, due to the carryover of 258,000,000 bushels of wheat on July 31, 1945. Within this carryover were substantial quantities of wheat in export position and a "bank" of wheat amounting to over 62,000,000 bushels in country elevators. These stocks were supplemented, of course, by deliveries from the 1945 wheat crop.

Canadian wheat exports (excluding flour) were heavily concentrated during the first half of the crop year, approximately 178,000,000 bushels, two-thirds of the total quantity for the year, being exported between Aug. 1, 1945, and Jan. 31, 1946. In this connection it is interesting to note that during the August-January period, 36 p.c. of Canadian wheat exports went to the United Kingdom, while during the February-July period, 61 p.c. of the smaller Canadian wheat exports were directed to the United Kingdom as a result of the priority granted that country.

Also significant was the wide distribution of wheat exports among wheat importing countries during the crop year. All exports were programmed through the Cereals Committee of the then-existing Combined Food Board and were related to export programs undertaken by other countries, principally the United States and Australia. In addition to wheat exports, Canada exported 62,000,000 bushels of wheat in the form of flour, of which about 28,000,000 bushels went to the United Kingdom and the balance was distributed among a wide range of importing countries. A very substantial volume of Canadian flour was purchased by UNRRA for distribution to countries in receipt of UNRRA assistance.

The co-ordinated distribution of exports of wheat from the chief supplying countries went a long way in meeting the most urgent import requirements. During the crop year there was a deficit in world wheat supplies which could not under any circumstances be overcome. The problem was to make the available supplies in all wheat exporting countries go as far as possible in meeting urgent requirements in both Europe and Asia. An element of flexibility was maintained in the movement of supplies from exporting countries and in this way recurring crises were minimized. The problem, one of potential hunger and starvation, was reduced to a problem of meagre rations in many countries and malnutrition on a wide scale which was partly relieved with the harvesting of improved grain crops throughout Europe in late June, July and August, 1946. It can be said that Canada, the United States and Australia over-exported wheat during the critical crop year under review. Residual problems were left in all three countries. These problems, however, must be evaluated in terms of the impression which was made upon a severe and far-reaching food crisis.

Year-End Stocks.—The implementation of the foregoing export program in 1945-46, plus meeting the full requirements of Canadian mills for the production of domestic and export flour, reduced reserve stocks of wheat in Canada to the lowest point since 1938. The carryover on July 31, 1946, was 69,900,000 bushels, of which 27,200,000 bushels were on farms and 42,700,000 bushels in commercial position. This compared with a carryover of 258,000,000 bushels on July 31 in the previous crop year. Stocks of wheat in export positions were practically exhausted by the end of the crop year, and a substantial part of remaining commercial stocks was required to meet the requirements of Canadian mills until new crop wheat became available in September. This exhaustion of wheat stocks in all positions in Canada as at July 31, 1946, and especially in wheat stocks in export positions, had an important effect upon the Canadian export position during the first four months of the ensuing crop year.

The 1945-46 Grain Program

During the crop year 1945-46, the Canadian Wheat Board administered a grain and oilseed program which closely paralleled the program in effect in the previous crop year. The main features of the 1945-46 program were as follows:—

Wheat.—*Western Division.*—In accordance with Order in Council P.C. 2550, Apr. 12, 1945, the Board continued to handle all wheat marketed by producers in the Western Division. The Board's fixed initial price for 1945-46 was $1·25 per bushel basis No. 1 Northern wheat in store Fort William/Port Arthur or Vancouver. Order in Council P.C. 5476, Aug. 7, 1945, established Board prices for other principal grades of wheat.

Pursuant to Order in Council P.C. 2550, Apr. 12, 1945, the Board was empowered to restrict marketings of wheat in the Western Division to 14 bushels per authorized acre. As the 1945 wheat crop was small and the demand continued on a high level, it was possible for the Dominion Government to authorize the Board to take all wheat offered by producers during the crop year.

Eastern Division.—As in 1944-45, the Canadian Wheat Board was exempted from carrying out its obligations under Sect. 14 of the Canadian Wheat Board Act (Order in Council P.C. 4645, dated July 5, 1945). Under the same Order in Council the Board was charged with the responsibility of maintaining a floor price of $1·25 per bushel for top grades of Ontario winter wheat basis in store Montreal. The Ontario Wheat Equalization Fund was continued in 1946 in accordance with Order in Council P.C. 4645, dated July 5, 1945.

Wheat Products.—Under Order in Council P.C. 5768, dated Aug. 28, 1945, the Canadian Wheat Board was charged with the administration of drawbacks paid in respect to flour and other human foods containing wheat, sold and delivered in Canada between Aug. 1, 1945, and July 31, 1946.

Oats and Barley.—Under Order in Council P.C. 2550, the Board continued to guarantee minimum prices for oats and barley on the same basis as in 1944-45. Maximum prices remained the same.

Oats and Barley Equalization Funds.—Under provisions of Order in Council P.C. 2550, dated Apr. 12, 1945, the Board continued to administer the Barley Equalization Fund and the Oats Equalization Fund and Advance Equalization Payments.

On Sept. 25, 1945, Order in Council P.C. 6238 was passed amending Western Grain Regulations to provide for an increase in the advance equalization payment on barley to 20 cents per bushel, and prohibiting maltsters from paying a premium on the purchase of barley for malting purposes. This action was taken on account of the shortage of feed grains in Canada and the necessity of prohibiting exports of barley of all types during the crop year 1945-46. The 20-cent Advance Equalization Payment to producers applied on barley marketings from Aug. 1, 1945, to July 31, 1946.

Flaxseed.—Under Order in Council P.C. 2550, the Board continued to be the sole agency to receive commercial flaxseed from producers in Canada, the buying and selling prices remaining the same as in 1944-45 (see p. 798). Under this Order, the Board was required to fill domestic requirements before offering flaxseed for export.

Oilseeds.—Under Order in Council P.C. 859, dated Feb. 9, 1945, the Board continued to guarantee minimum prices for sunflower seed and rapeseed on the same basis as in 1944-45 (see p. 798).

Special Measures in Regard to Wheat, 1945-46

The British Priority.—Early in 1945-46 the demand situation was such that Canada could dispose of wheat in a volume which, later in the crop year, would reduce the quantities available to the United Kingdom below her minimum requirements. Since Canada had provided practically all imported wheat for the United Kingdom since the outbreak of War in 1939, it was evident that some special arrangements would have to be made if Canada were to continue this position in 1945-46. As a result, cables and letters were exchanged between the Board and the United Kingdom authorities relative to the United Kingdom's wheat requirements for 1945-46 and Canada's ability to meet these requirements in the face of exceptional demand from other countries. The Imported Cereals Division of the Ministry of Food made available to the Board all relevant facts in regard to the United Kingdom's wheat position for 1945-46, including monthly requirements and bulk stocks required to permit continuous operation of United Kingdom mills. As a result of this exchange of information and views, the Board in November, 1945, agreed to supply the United Kingdom with her minimum home requirements for the period from Dec. 1, 1945, to Apr. 30, 1946. This commitment was in addition to the supplies of wheat made available to the United Kingdom during the August-November period, which not only met United Kingdom requirements during these months, but resulted in a satisfactory stock position in the United Kingdom as at Dec. 1, 1945. This decision on the part of the Board was concurred in by the Federal Government and became an important feature of Canadian wheat policy during the critical winter of 1945-46.

Limitation of Wheat Export Price.—On Sept. 19, 1945, the Federal Government announced that for the time being Canadian wheat was to be offered for export at a price not exceeding $1·55 per bushel for No. 1 Northern wheat basis in store Fort William/Port Arthur or Vancouver. At the same time the Federal Government announced that "as a further means of stabilizing wheat prices during the post-war period, it is the intention that steps shall be taken to ensure that producers will not at any time up to July 31, 1950, receive less than $1·00 per bushel for No. 1 Manitoba Northern wheat, basis in store Fort William/Port Arthur or Vancouver, on the authorized deliveries for each crop year". The reasons for these two decisions on the part of the Federal Government and the specific instructions to the Canadian Wheat Board in respect to export prices for Canadian wheat were set forth in Order in Council P.C. 6122, dated Sept. 19, 1945.

Cessation of Mutual Aid.—At midnight Sept. 1, 1945, sales of wheat under Mutual Aid ceased in Canada. Mutual Aid funds first became available in 1943 and large quantities of wheat and flour went abroad as a direct charge against these funds. After Sept. 1, 1945, the sale of Canadian wheat and flour became subject to cash settlement or a charge against credit arrangements negotiated by various importing countries with the Canadian Government. Pursuant to this decision, the Board's Crown Wheat Account was closed out as at the close of business on Sept. 1, 1945.

Special Conservation and Export Program.—On Mar. 18, 1946, the Prime Minister, the Rt. Hon. W. L. Mackenzie King announced a special program designed, in part, to reduce the consumption of breadstuffs in Canada and to facilitate the export of wheat and wheat flour to meet an "urgent and desperate" food situation abroad. Of particular importance to the wheat situation in Canada was the announcement of the intention of the Federal Government to:—

(1) Reduce wheat available for domestic milling by 10 p.c. as compared with the corresponding months of 1945;
(2) Reduce the use of wheat for distilling by 50 p.c. as compared with the year previous;
(3) Encourage reduction in inventories of wheat and wheat products;
(4) Grant priorities for rail transportation of wheat for export;
(5) Provide for the release of increased quantities of oats and No. 4 Northern wheat for export;
(6) Provide special arrangements to encourage immediate delivery of wheat stored on farms.

The provisions as outlined above were carried out during the crop year; with respect to Item No. 6, the Federal Government on Mar. 18, 1946, announced a special income tax arrangement whereby producers who marketed wheat during the period Apr. 1, 1946 to June 30, 1946, could, if they so desired, take cash settlement at their option in 1946, 1947 or 1948. The date of accepting settlement determined the year in which the payment was to apply for income tax purposes. A total of 8,944,453 bushels were delivered to the Board under this arrangement.

United Kingdom Wheat Contract.—On July 25, 1946, the Hon. James A. MacKinnon, Minister of Trade and Commerce, made the following statement in the House of Commons:—

> "Agreement has been reached between the Government of the United Kingdom and the Government of Canada for the purchase by the former of Canadian wheat over the four years beginning Aug. 1, 1946.
>
> "The Agreement provides that the United Kingdom will purchase and the Canadian Government will supply the following quantities each year: 1946–47—160,000,000 bushels, 1947–48—160,000,000 bushels, 1948–49—140,000,000 bushels, 1949–50—140,000,000 bushels. The contract provides that in the event of the United Kingdom requiring from Canada any additional quantities of wheat that the Canadian Government is prepared to make available, such additional quantities which the Canadian Government offers and the United Kingdom accepts shall in all respects be subject to the provisions of the Agreement. Part of the quantity of wheat specified in the contract will be supplied in the form of flour to the following amounts:—1946–47—500,000 tons firm with an additional quantity up to 140,000 tons dependent upon the out-turn of the crop; 1947–48—400,000 tons firm with an additional quantity up to 140,000 tons dependent upon the out-turn of the crop; 1948–49—a minimum of 300,000 tons, the actual tonnage to be negotiated by July 1, 1947; 1949–50—a minimum of 300,000 tons, the actual tonnage to be negotiated by July 1, 1948. The price which the United Kingdom Government undertakes to pay for the wheat supplied is as follows, basis No. 1 Manitoba Northern, in store Fort William/Port Arthur, Vancouver or Churchill: 1946–47—a fixed price of $1·55 per bushel; 1947–48—a fixed price of $1·55 per bushel; 1948–49—a minimum price of $1·25 per bushel, the actual price to be negotiated by Dec. 31, 1947; 1949–50—a minimum price of $1 per bushel, the actual price to be negotiated by Dec. 31, 1948. The contract provides that its terms and conditions shall be subject to any modification or amendment which may be necessary to bring it into conformity with any international agreements or arrangements later concluded to which both Governments are parties. Nothing in the Agreement will affect decisions which may be taken on the basis of recommendations of the I.E.F.C.

> "The contract is based upon commercial considerations of mutual interest. It ensures to the United Kingdom substantial quantities of wheat during the expected period of shortage at prices below those which would be payable were there to be a free market at the present time. This is the commercial advantage which the United Kingdom secures. In the later period of the contract Canada receives the advantages of a guaranteed market, though for a diminished quantity, and of the assurance of at least the stated minimum prices. In determining the actual price in the last two years regard will be had to the extent to which the agreed price for the first two years falls below the world price for that period. Our farmers are therefore protected from crippling losses should there be a world slump in wheat prices. This is the commercial advantage which Canada secures."

Acreage and Production

Wheat acreage in 1945 showed only a slight increase over the area sown in 1944. Wheat acreage in Canada amounted to 23,414,100 acres as compared with 23,284,200 acres in 1944. Small decreases were shown in the area sown to rye and flaxseed.

Total grain and flaxseed production in Canada decreased by about 300,000,000 bushels as compared with 1944. Prairie production of all grains and flaxseed declined by 253,000,000 bushels as compared with 1944.

Grain production in Canada and the Prairie Provinces is given in a table at p. 810, for the years 1940-46.

Total supplies of each of the major grain and oilseed crops showed substantial decreases as compared with 1944-45 due, in part, to smaller inward carryovers and, in part, to smaller production in 1945 as compared with 1944. Total supplies of wheat were 197,000,000 bushels lower than in 1944-45. A statement at p. 812 shows total supplies of grain in Canada for the years 1940-47.

Price Ceilings.—The Board continued to act as administrator of ceiling prices on whole grains on behalf of the Wartime Prices and Trade Board.

Delivery Quotas.—As a result of country elevator space available at the start of 1945-46 and the rapid movement of wheat to seaboard, it was possible to increase delivery quotas quickly. The initial wheat quota was established at 5 bushels per authorized acre. On Sept. 6, 1945, a general wheat delivery quota of 14 bushels per authorized acre was established throughout Western Canada. On Oct. 4, 1945, the Minister of Trade and Commerce announced in the House of Commons that the 14-bushel limitation on marketings was being removed for the crop year 1945-46; on the following day the Board announced an open delivery quota on wheat at all delivery points in the Western Division, effective until July 31, 1946.

In order to assist in meeting the demand for feed grains, the Board extended the open delivery quota on oats and barley in effect on July 31, 1945, to Aug. 31, 1945. On Aug. 30 the Board announced an open delivery quota on barley for the balance of 1945-46. At the same time the open delivery quota on oats was extended to Sept. 14, 1945. On Sept. 13 the Board announced that the initial 1945-46 delivery quota on oats would become effective on Sept. 17 and would be established at 5 bushels per seeded acre. At the same time it was pointed out that some restriction had to be maintained on oats in order to facilitate the rapid movement of wheat to the Lakehead and to the West Coast during the early part of the marketing year. On Dec. 27, 1945, a 10-bushel quota became effective in respect to oats and this was followed on Dec. 31 by the declaration of an open delivery quota at all but a few delivery points. Delivery quotas in respect to oats were completely open on Feb. 11, 1946. At the commencement of the crop year the Board announced that delivery quotas would not be established for 1945-46 in respect to flax and rye.

Transportation.—The facilities of the Emergency Grain Transportation Committee were used throughout the crop year 1945-46 in co-ordinating transportation in Canada with transportation problems as they were developed. Transportation available for the movement of grain, including railways and lake vessels, was adequate throughout the crop year. During the autumn of 1945 it was not only possible to provide exceedingly large stocks of wheat at seaboard but, in addition, over 90,000,000 bushels of wheat were in eastern storage positions at the close of navigation on the Great Lakes. The westward movement of wheat from Alberta kept well ahead of arriving ocean tonnage until late in the crop year.

In the final quarter of the crop year availability of stocks of grain became a limiting factor and it was not possible to use the volume of transportation which would otherwise have been available. Taking the crop year as a whole, transportation facilities in Canada geared themselves very closely with the domestic and export requirements. Particular reference should be made to the work of the railways in Western Canada and the co-operation of the elevator companies in reducing country elevator stocks to 11,200,000 bushels on July 31, 1946, with a substantial part of these stocks either held for mills or in unshippable quantities.

Changes in Personnel

In September, 1945, D. A. Kane resigned as Assistant Chief Commissioner, C. E. Huntting, Commissioner, was appointed Assistant Chief Commissioner, and W. C. McNamara was appointed to the vacancy on the Board. Mr. Kane remained with the Board as Western Representative, with headquarters in Vancouver.

The Crop Year, 1946-47

Summary

Owing to the improved crops in Europe, the food problem of 1946-47 will be serious but less severe than in 1945-46. The gains in grain production in Europe are, in part, offset by substantial reductions in the volume of wheat available for export during the present crop year from Canada and the United States. Some time must yet elapse before many millions of people will feel secure in regard to food supplies. While world wheat production in 1946 was running very close to pre-war levels, for the second successive year it was "touch and go" for many countries during the winter months and during the critical period of March, April, May and June of 1947. There were no sizeable stocks of wheat anywhere in the world to cushion the transition between the crop years 1945-46 and 1946-47, due in part, to the fact that a great international effort was made in 1945-46 to relieve hunger. This effort left reserves in both importing and exporting countries at dangerously low levels, and crops harvested in 1946 commenced to go into consumption as soon as they became available.

The 1946-47 Grain Program

Wheat.—On July 30, 1946, the Hon. James A. MacKinnon, Minister of Trade and Commerce, made the following statement in the House of Commons:—

> "As the House has been advised, the Government's attention has been directed for some time to the question of wheat policy for Western Canada. The United Kingdom-Canada wheat contract signed on July 24 and announced to the House on July 25 is an important element in the new policy for western wheat producers that I now wish to describe. The contract establishes a market for a considerable proportion of the next four western wheat crops, with underlying price guarantees. This factor, along with the continued shortage of foodstuffs and the high prices of competing wheats, makes it possible to deal more generously with the wheat pro-

ducer than I indicated in this House on Mar. 20, 1946. At that time, I announced the continuation of the initial price of $1·25 per bushel basis No. 1 Northern in store, Fort William/Port Arthur or Vancouver, for the 1946–47 crop year.

"The new policy is based upon an initial price of $1·35 per bushel basis No. 1 Northern in store Fort William/Port Arthur or Vancouver, applicable to all the wheat delivered to the Canadian Wheat Board in the five-year period from and including Aug. 1, 1945, and July 31, 1950. The 1945–46 deliveries, based on an initial price of $1·25 will be brought up to a $1·35 basis by payment of a flat 10 cents per bushel on all grades.

"As the House has been informed, the payment of about 12 cents per bushel as participation on the 1943 crop is now under way. This participation payment will be followed by one on the 1944 crop the sale of which has progressed to a point where I am safe in saying that the participation payment will be upwards of 16 cents per bushel. After the 10-cent payment on the 1945 crop has been made—to bring the initial payment up to $1·35—the plan is to place the remaining surplus from that crop in a five-year pool with the succeeding four crops of 1946, 1947, 1948 and 1949. Participation certificates will be issued in the usual way, but the payment on these certificates will not be made until after the conclusion of the five-year pool at July 31, 1950. In other words, the deliveries of all five years will be bulked in one pool, with the same initial price of $1·35 ruling throughout the period and the surplus resulting from the marketing of these crops will constitute the participation payments.

"In connection with deliveries, there was, of course, no restriction on 1945–46 deliveries and it is the intention of the Government to instruct the Canadian Wheat Board to accept all the wheat that producers wish to deliver in 1946–47. The best information we can get indicates a continued over-all world shortage of wheat and wheat flour in the coming crop year. Deliveries in the last three years of the pool will depend upon conditions of production and of markets. It will be provided in the new orders that the deliverable quantities will be determined by the Governor in Council before each new crop year, but in any event, the deliverable quantity shall not be less than 14 bushels per authorized acre. The latter provision should safeguard wheat producers against an extreme reduction in deliverable amounts, should available markets be smaller than we expect.

"I should also mention the provisions for domestic and export prices. In the interests of general price control that benefits the wheat producers along with other Canadians, the domestic price of wheat will be continued at $1·25, with the Government assuming carrying costs on the amounts of wheat used domestically. The Government will continue to pay a drawback to millers covering the difference between 77⅜ cents and $1·25 per bushel on wheat used in Canada for human consumption. This is, of course, not a direct charge against the producer. With regard to export prices, the supplies for the United Kingdom will obviously be sold within the terms of the contract. In sales to non-contract countries, a serious effort will be made to sell at prices roughly corresponding to those of the other principal supplier—now, the United States. To this end, Order in Council P.C. 6122 of Sept. 19, 1945, has been revoked. It will be remembered that through this Order the Government directed the Canadian Wheat Board for the time being not to exceed a sales price of $1·55 per bushel for No. 1 Northern in store Fort William/Port Arthur or Vancouver in its export sales.

"It will be apparent from what I have said and from the terms of the United Kingdom-Canada Wheat Contract that the Government considers it wise and advisable to continue the Canadian Wheat Board as the sole purchaser of western Canadian wheat from the producers The Government believes that the great majority of western producers are satisfied, for the present at least, with this method of marketing. The present powers of the Canadian Wheat Board will be extended under the National Emergency Transitional Powers Act for the duration of this statute. When it expires, the Government will direct its attention to the form and authority under which the Board's powers may be further continued.

"Other powers of the Board, such as delivery quotas, will continue to be employed as in the past. For 1946–47, however, the quotas will not be finally restrictive but employed for the purpose of fairly dividing elevator space and railway cars among all the producers.

"The representations that have been made to the Government by spokesmen for the organized producers of western Canada stress their great desire for stability, so far as it can be attained by Government action, during the post-war years. I think it can be fairly said that the policy I have outlined helps the producers materially toward that objective. There is no question that the wheat producers have made possible the success of domestic price control by immediate sacrifices in their 1945–46 and current export prices. These sacrifices have also assisted in overseas rehabilitation. The Government is convinced that the outlined policy will give fair and comparatively stable returns to the producers, so far as it is within the power of the Government."

Eastern Division.—On July 18, 1946, the Hon. James A. MacKinnon, Minister of Trade and Commerce, made the following general statement in regard to Ontario winter wheat policy for the crop year commencing July 1, 1946:—

> "During the crop year 1945–46, Ontario winter wheat was sold at a ceiling price of $1·26 per bushel for No. 1 Canadian Eastern Winter Wheat, basis delivered at Montreal. There was an appropriate flour ceiling. Producers were also given the proceeds of an Ontario Wheat Equalization Fund, arising from collection of an equalization fee on the exports of Ontario winter wheat flour. To place a 'floor' under these prices, the Canadian Wheat Board was empowered to buy No. 1 Canada Eastern Winter Wheat at $1·25 per bushel, basis delivered at Montreal. No purchases by the Board were necessary, because commercial interests bought the wheat at the ceiling price.
>
> "It had originally been intended to raise the ceiling on Ontario wheat to $1·35 per bushel for the crop year beginning July 1, 1946, and to permit a corresponding increase in the domestic price of winter wheat flour and the products thereof, but in view of recent developments in price control policy this step is not being taken. Instead producers will receive at time of delivery an additional 9 cents per bushel which will be paid by the Canadian Wheat Board on behalf of the Government.
>
> "In addition, the Wheat Board will pay to producers at time of delivery an amount of 5 cents per bushel in lieu of any payment from the Equalization Fund that will be operated as before with the Government absorbing any profit or loss therein. By this payment at time of delivery, the difficulties and expense of making a subsequent small payment will be avoided. It is felt that this system will be more satisfactory to the producers. The net effect will therefore be that producers of Ontario wheat will receive, in addition to the price paid by the purchaser under the existing price ceiling, an amount of 14 cents, 9 cents of which represents the equivalent of an increased price and 5 cents of which represents a fixed and final payment out of the Ontario Wheat Flour Equalization Fund. The Canadian Wheat Board will continue to maintain a floor at $1·25.
>
> "I should perhaps add, for the sake of clarity, that no adjustment is being made in the price ceiling on Ontario wheat or products made therefrom."

Wheat Products.—The Board continued to administer drawbacks paid in respect to flour and other human foods containing wheat, sold and delivered in Canada between Aug. 1, 1946 and July 31, 1947.

Oats and Barley.—Under Order in Council P.C. 3222, dated July 30, 1944, the Board continued to guarantee minimum prices for oats and barley on the same basis as in 1945-46. Maximum prices remained the same.

Oats and Barley Equalization Funds.—Under provisions of Order in Council P.C. 3222, dated July 30, 1946, the Board continued to administer the Barley Equalization Fund and the Oats Equalization Fund and Advance Equalization Payments. For the crop year 1946-47 the advance equalization payment on barley was reduced from 20 cents per bushel to 15 cents per bushel and malting premiums up to 5 cents per bushel were permitted. The exercise of export control to preserve grain supplies for domestic use continued as an important feature of grain policy, with the Agricultural Supplies Board making the decisions as to export releases.

Flaxseed.—For the crop year 1946-47 the Board continued to be the sole agency to receive commercial flaxseed from producers in Canada. Under Order in Council P.C. 3222, dated July 30, 1946, the Board was empowered to buy flaxseed at $3·25 per bushel basis No. 1 C.W. Flaxseed in store Fort William/Port Arthur or Vancouver, and the Grade No. 1 Canada Eastern Flaxseed in store Montreal. Under the same Order in Council the Board was required to sell flaxseed in the domestic market at prices determined by the Oils and Fats Administrator of the Wartime Prices and Trade Board. The Board was further required to fill domestic requirements before offering flaxseed for export.

Oilseeds.—Under Order in Council P.C. 3222, the Board continued to guarantee minimum prices for sunflower seed and rapeseed on the same basis as in 1945-46.

Acreage and Production

Wheat acreage in Canada increased from 23,414,100 acres in 1945 to 25,900,000 acres in 1946. This increase in wheat acreage was accompanied by a decrease of over 1,000,000 acres seeded to oats and a decrease of about 600,000 acres seeded to barley.

Total grain and flaxseed production in Canada increased by about 123,000,000 bushels as compared with 1945 while Prairie production increased by over 120,000,000 bushels. The table below shows grain production in Canada and in the Prairie Provinces for the years 1940-46.

Total supplies of wheat showed a substantial decrease of 75,000,000 bushels as compared with the 1945-46 figure due to the smaller inward carryover which more than offset the increase in production in 1946. A table at p. 812 shows total supplies of grain in Canada for the years 1940 to 1946.

HISTORICAL STATISTICS

Grain Production.—The following statement shows grain production (in million bushels) for Canada and for the Prairie Provinces, for the crop years ended July 31, 1940 to 1946:—

Canada

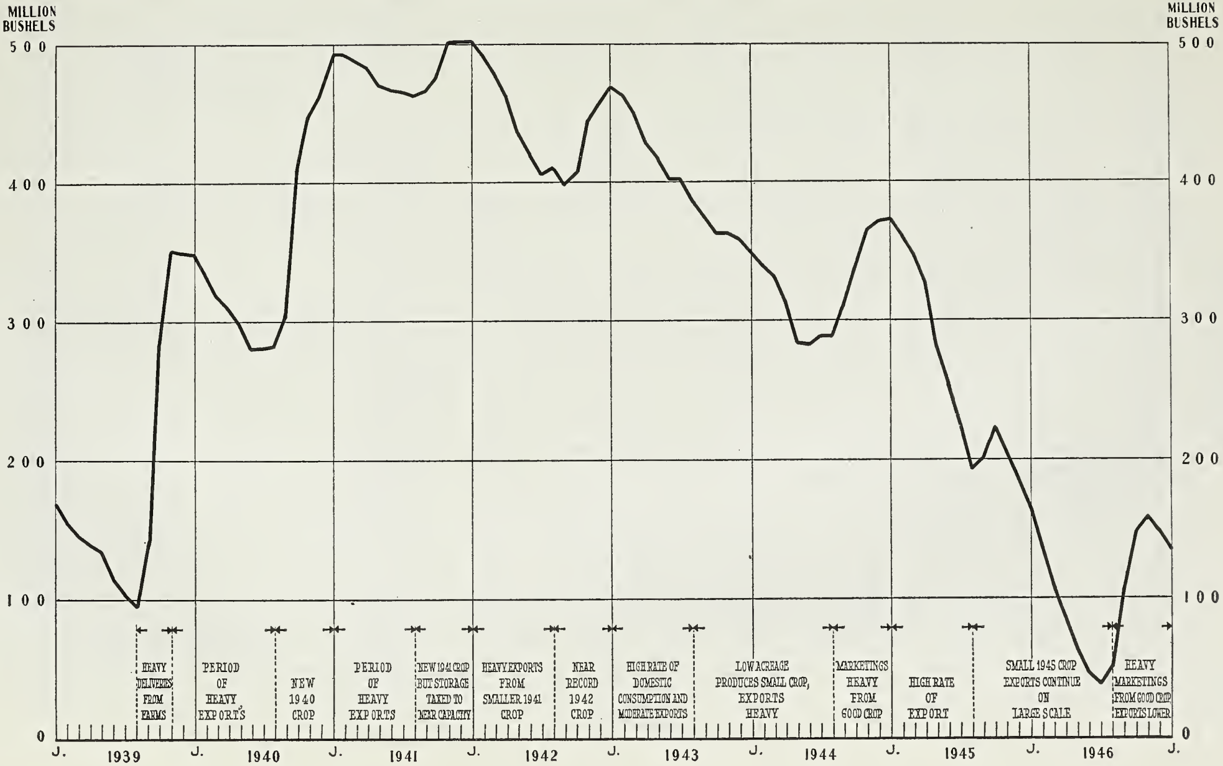
Year	*Wheat*	*Oats*	*Barley*	*Rye*	*Flaxseed*	*Totals*
			(million bushels)			
1940	540	381	104	14	3	1,042
1941	315	306	111	12	6	750
1942	557	652	259	25	15	1,508
1943	284	482	216	7	18	1,007
1944	417	500	195	9	10	1,131
1945	318	382	158	6	8	872
1946	421	400	160	7	7	995

Prairie Provinces

Year	*Wheat*	*Oats*	*Barley*	*Rye*	*Flaxseed*	*Totals*
			(million bushels)			
1940	514	229	83	12	3	841
1941	296	178	95	10	6	585
1942	529	500	241	23	15	1,308
1943	268	392	204	6	18	888
1944	411	371	178	7	9	976
1945	295	273	144	4	7	723
1946	400	276	145	6	7	834

VISIBLE STOCKS OF WHEAT IN CANADA, AS AT THE FIRST OF EACH MONTH

(NOT INCLUDING STOCKS ON FARMS)



Grain Stocks.—The following statement shows (in million bushels) the stocks of Canadian grain available in Canada and the United States for the crop years ended July 31, 1940 to 1947:—

Year and Item	*Wheat*	*Oats*	*Barley*	*Rye*	*Flaxseed*
			(million bushels)		
1940					
Carryover, July 31, 1939	102	49	13	3	[1]
Production, 1939	521	384	103	15	2
Totals	623	433	116	18	2
1941					
Carryover, July 31, 1940	300	47	13	5	1
Production, 1940	540	381	104	14	3
Totals	840	428	117	19	4
1942					
Carryover, July 31, 1941	480	42	11	5	1
Production, 1941	315	306	111	12	6
Totals	795	348	122	17	7
1943					
Carryover, July 31, 1942	424	29	11	3	1
Production, 1942	557	652	259	25	15
Totals	981	681	270	28	16
1944					
Carryover, July 31, 1943	595	149	69	15	4
Production, 1943	284	482	216	7	18
Totals	879	631	285	22	22
1945					
Carryover, July 31, 1944	356	109	46	6	4
Production, 1944	417	500	195	9	10
Totals	773	609	241	15	14
1946					
Carryover, July 31, 1945	258	98	29	2	3
Production, 1945	318	382	158	6	8
Totals	576	480	187	8	11
1947					
Carryover, July 31, 1946	70	75	30	1	2
Production, 1946	421	400	160	7	7
Totals	491	475	190	8	9

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[1] Less than 500,000 bu.

Initial and Participation Payments.—Initial and participation payments for wheat, basis No. 1 Northern in store Fort William, for the crop years ended July 31, 1936 to 1947, were as follows:—

Year	*Initial Payment*	*Participation Payment*	*Total*
	$ per bu.	$ per bu.	$ per bu.
1936	0·875	-	0·875
1937 [1]	0·875	-	0·875
1938 [1]	0·875	-	0·875
1939	0·80	-	0·80
1940	0·70	-	0·70
1941	0·70	0·06215	0·76215
1942	0·70	0·15336	0·85336
1943	0·90	0·12502	1·02502
1944 [2]	1·25	0·12146	1·37146
1945	1·25	[4]	-
1946	1·25[3]	[4]	-
1947	1·35	[4]	-

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[1] Effective only if closing price dropped below 90 cents per bushel for No. 1 Northern in store Fort William. [2] Changed from 90 cents to $1·25 on Sept. 27, 1943. [3] Additional 10 cents per bushel paid in 1946-47. [4] Information not available.

Equalization Payments.—Advance equalization payments for the crop years ended July 31, 1944 to 1947, were as follows:—

Year	*Oats*	*Barley*
	cts. per bu.	cts. per bu.
1944	10	15
1945	10	15
1946	10	20
1947	10	15

The following statement shows the coarse grain distribution of surplus from equalization funds, Apr. 1, 1943 to July 31, 1943, and for the crop years ended July 31, 1944 and 1945:—

Year	*Oats*	*Barley*
	cts. per bu.	cts. per bu.
April 1 to July 31, 1943	2·40	1·43
1944	5·849	-
1945	-	7·59

Flaxseed Prices.—Fixed prices for flaxseed, basis No. 1 C.W. in store Fort William/Port Arthur, for the crop years ending July 31, 1943 to 1947, were as follows:—

Year	*Price*
	$ per bu.
1943	2·25
1944	2·50
1945	2·75
1946	2·75
1947	3·25

Subsection 2.—Distribution, Storage and Inspection of Principal Field Crops

For three consecutive crop years the disposition of Canadian wheat has been featured by a heavy export movement of this grain. During the 1945-46 season total exports of wheat and wheat flour equivalent amounted to 340,107,000 bu. as against 342,945,000 bu. in 1944-45 and 343,755,000 bu. in 1943-44. With bread-grain requirements remaining extremely urgent in the war-ravaged countries of the world, the bulk of total wheat and wheat flour shipments found its way into these areas. Since the peak year of 1943-44, when Canadian exports of wheat to the United States for home consumption and milling in bond totalled 159,828,000 bu., shipments to that country have dwindled to 41,861,000 bu. in 1944-45 and 12,334,000 bu. in 1945-46.

Domestic utilization in 1945-46 totalled more than 166,000,000 bu. as compared with over 172,000,000 bu. a year earlier. The amount consumed as animal feed was reduced by approximately 15,000,000 bu. while consumption as human food increased by nearly 9,000,000 bu. Wheat movement from the Prairie Provinces into the Canadian feed deficit areas of Eastern Canada and British Columbia, under the Dominion Freight Assistance Policy, was only slightly larger in 1945-46 than it was in the preceding crop year. About three-quarters of the total 1945-46 freight assistance wheat shipments were destined for Ontario and Quebec.

3.—Production, Imports, Exports and Domestic Use of Canadian Wheat and Wheat Flour, Crop Years Ended July 31, 1941-46

(Millions of Bushels)

Item	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46
Carryover Aug. 1	300·5	480·1	423·8	594·5	356·5	258·1
Production	540·2	314·9	556·6	284·5	416·6	318·5
Imports	Nil	Nil	Nil	0·4	0·4	0·1
Totals, Supply	**840·7**	**795·0**	**980·4**	**879·4**	**773·5**	**576·7**
Exports	231·2	225·8	214·7	343·8	342·9	340·1
Domestic use	129·4	145·4	171·2	179·1	172·5	166·7
Totals, Disposition	**360·6**	**371·2**	**385·9**	**522·9**	**515·4**	**506·8**
Carryover July 31	480·1	423·8	594·5	356·5	258·1	69·9

The domestic and export trade in Canada's five principal grain crops are shown in some detail in Table 4. Substantial reductions from levels of the previous year are noted for the exports of the coarse grains. Oats and barley shipments were down by approximately 50 p.c. and 86 p.c., respectively, while rye exports were reduced by about 34 p.c. and flaxseed by 89 p.c.

4.—Distribution of Canadian Grain Crops, Crop Year Ended July 31, 1946

(Millions of Bushels)

Item	Wheat[1]	Oats	Barley	Rye	Flaxseed
Carryover Aug. 1, 1945	258·1	98·3	28·9	2·0	2·9
Production in 1945	318·5	381·6	157·8	5·9	7·6
Imports	0·1	Nil	Nil	Nil	Nil
Totals, Supply	**576·7**	**479·9**	**186·7**	**7·9**	**10·5**
Exports in terms of grain	340·1	46·9	5·5	3·0	0·4
Domestic Use—					
Human consumption	58·6	7·1	-	-	-
Animal feed	70·0	320·2	-	-	-
Seed requirements	32·1	30·5	-	-	-
Industrial use	6·0	Nil	-	-	-
Totals, Disposition	**506·8**	**404·7**	**157·1**[2]	**7·2**[2]	**8·9**[2]
Carryover July 31, 1946	69·9	75·2	29·6	0·7	1·6

[1] Includes wheat flour. [2] Total amounts for domestic use not divisible for barley, rye and flaxseed.

Licensed Grain Elevator Capacity.—At Dec. 1, 1946, total licensed grain elevator storage capacity in Canada stood at about 495,200,000 bu. as compared with approximately 566,700,000 bu. at the same date in 1945 and 596,400,000 bu. in 1944. In 1946 as in 1945 the greatest reduction in Canadian licensed elevator capacity occurred within the ranks of the temporary and special annexes of the western division. At Dec. 1, 1946, no temporary or special annexes were licensed in the eastern division. While some reduction was apparent in the capacity of elevators and permanent annexes in both eastern and western divisions, the decline was not substantial.

5.—Licensed Grain Elevator Capacity, as at Dec. 1, 1946

Division and Elevator	Elevators and Permanent Annexes	Temporary and Special Annexes	Total
	'000 bu.	'000 bu.	'000 bu.
Western Division			
Western country elevators	191,391	76,904	268,295
Private and mill elevators	17,425	243	17,668
Inter-public and semi-public terminals	18,100	Nil	18,100
Vancouver-New Westminster	15,948	"	15,948
Prince Rupert	1,250	"	1,250
Churchill	2,500	"	2,500
Fort William-Port Arthur	87,967	"	87,967
Totals, Western Division	**334,581**	**77,147**	**411,728**
Eastern Division			
Eastern Elevators—			
Bay Ports—			
Collingwood	2,000	Nil	2,000
Midland	4,000	"	4,000
Midland Simcoe	4,250	"	4,250
Midland Tiffin	4,650	"	4,650
Midland Aberdeen	900	"	900
Owen Sound	4,000	"	4,000
Port McNicoll	6,500	"	6,500
Goderich Elevator and Transit	3,000	"	3,000
Goderich-Western Canada	600	"	600
Sarnia	3,000	"	3,000
Walkerville	1,325	"	1,325
Totals, Bay Ports	34,225	-	34,225
Eastern Division—conc.			
Lower Lake Ports—			
Port Colborne, N.H.B.	3,000	Nil	3,000
Port Colborne Maple Leaf	2,250	"	2,250
Humberstone Robin Hood	2,000	"	2,000
Toronto	4,000	"	4,000
Kingston	2,350	"	2,350
Prescott	5,500	"	5,500
Totals, Lower Lake Ports	19,100	-	19,100
St. Lawrence Ports—			
Montreal, N.H.B.	15,162	Nil	15,162
Montreal Dominion Elevator	750	"	750
Sorel	3,000	"	3,000
Three Rivers	2,000	"	2,000
Quebec	4,000	"	4,000
Totals, St. Lawrence Ports	24,912	-	24,912
Maritime Ports—			
West Saint John	2,577	Nil	2,577
Saint John	500	"	500
Halifax	2,200	"	2,200
Totals, Maritime Ports	5,277	-	5,277
Totals, Eastern Division	**83,514**	-	**83,514**
Grand Totals	**418,095**	**77,147**	**495,242**

6.—Quantities of Grain Inspected, Crop Years Ended July 31, 1945 and 1946

Grain	1945			1946		
	Western Division	Eastern Division	Total	Western Division	Eastern Division	Total
	bu.	bu.	bu.	bu.	bu.	bu.
Spring wheat	413,325,030	Nil	413,325,030	284,606,674	Nil	284,606,674
Winter wheat	453,870	1,627,386	2,081,256	1,864,186	2,912,302	4,776,488
Totals, Wheat	413,778,900	1,627,386	415,406,286	286,470,860	2,912,302	289,383,162
Oats	139,374,840	2,190	139,377,030	97,148,775	68,977	97,217,752
Barley	73,971,640	3,383	73,975,023	55,921,370	Nil	55,921,370
Rye	4,318,670	Nil	4,318,670	2,822,515	11,240	2,833,755
Flaxseed	7,033,158	76,970	7,110,128	5,104,080	49,890	5,153,970
Corn	246,000	4,621,394	4,867,394	61,500	2,690,164	2,751,664
Buckwheat	3,750	19,192	22,942	6,250	26,476	32,726
Mixed grain	1,119,600	Nil	1,119,600	716,400	Nil	716,400
Totals, Grain	**639,846,558**	**6,350,515**	**646,197,073**	**448,251,750**	**5,759,049**	**454,010,799**

7.—Lake Shipments of Grain from Fort William and Port Arthur, Crop Years Ended July 31, 1945 and 1946

Grain	1945			1946		
	To Canadian Ports	To U.S. Ports	Total Shipments	To Canadian Ports	To U.S. Ports	Total Shipments
Wheat.................. bu.	220,696,971	104,034,028	324,730,999	176,738.239	54,284,778	231,022,017
Oats.................. "	33,859,913	65,382,826	99,242,739	49,327,544	12,995,868	62,323,412
Barley.................. "	22,586,013	32,981,670	55,567,683	30,049,959	3,958,312	34,008,271
Rye.................. "	1,678,998	3,985,593	5,664,591	1,082,056	1,631,285	2,713,341
Flaxseed.................. "	1,699,266	3,801,666	5,500,932	2,970,283	365,251	3,335,534
Totals, Grain..... bu.	**280,521,161**	**210,185,783**	**490,706,944**	**260,168,081**	**73,235,494**	**333,402,575**
Screenings.............. ton	33,839	149,643	183,482	24,503	114,878	139,381

8.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1937-46

Note.—Figures for the crop years 1922-29 are given at p. 626 of the 1931 Year Book and for 1930-36 at p. 512 of the 1943-44 edition.

Item and Crop Year	Wheat	Oats	Barley	Flaxseed	Rye	Total Grain
	bu.	bu.	bu.	bu.	bu.	bu.
Receipts—						
1937....................	161,828,565	12,273,485	6,247,592	586,734	2,444,583	183,380,959
1938....................	118,582,130	7,496,487	27,610,593	482,529	1,400,923	155,572,662
1939....................	224,541,409	16,024,099	24,845,946	547,082	891,751	266,850,287
1940....................	240,412,659	15,204,169	14,340,317	666,436	2,163,482	272,787,063
1941....................	294,736,497	7,958,781	8,937,925	2,206,498	906,154	314,745,855
1942....................	282,400,393	5,468,716	7,240,814	1,912,528	785,929	297,808,380
1943....................	219,652,250	9,785,401	5,278,318	1,244,032	458,978	236,418,979
1944....................	254,389,628	18,838,600	20,806,305	752,512	739,090	295,526,135
1945....................	365,444,773	44,726,587	27,047,192	1,869,128	2,632,303	441,719,983
1946....................	318,075,743	70,013,103	30,789,084	3,669,449	1,938,882	424,486,261
Shipments—						
1937....................	178,492,948	13,159,516	6,724,438	586,734	2,811,294	201,774,930
1938....................	119,884,101	7,358,685	27,090,701	482,529	1,180,127	155,996,143
1939....................	188,113,064	13,763,219	24,626,489	547,083	1,045,658	228,095,513
1940....................	221,558,877	17,360,438	14,784,608	613,212	1,927,316	256,244,451
1941....................	289,226,546	8,319,274	9,358,776	2,212,699	1,048,997	310,166,292
1942....................	282,022,653	5,377,665	5,658,168	1,873,895	777,623	295,710,004
1943....................	241,277,883	9,214,194	5,348,513	1,223,582	556,151	257,620,323
1944....................	248,581,173	17,221,335	17,164,441	628,979	829,960	284,425,888
1945....................	385,086,106	39,039,333	30,943,479	1,369,573	2,315,638	458,754,129
1946....................	338,462,187	70,460,215	28,472,958	3,727,565	2,432,487	443,555,412

Wheat Flour.—Since the crop year 1937-38, when wheat-flour production amounted to 12,867,728 bbl., the output of Canadian mills has more than doubled, the 1945-46 total amounting to 26,435,341 bbl., an all-time record high. Domestic consumption of flour in 1945-46 displayed a substantial gain when approximately 12,837,000 bbl. were consumed domestically as against some 10,900,000 bbl. in 1944-45. During the 1945-46 season, the mills operated at 96·5 p.c. of their rated capacity. Some mills exceeded their monthly rated capacity by operating more than the customary number of working days per month and were instrumental in boosting the over-all percentage of rated capacity effective for March and May to 102·4 p.c. and 100·5 p.c., respectively. Statistics of employees, power installation, value of products, etc., for flour and feed mills for 1944 are given in Table 9 of the Manufactures Chapter at page 528.

Section 4.—Marketing of Live Stock and Live-Stock Products*

Since the outbreak of war in 1939, there has been a great increase in the demand for live stock and live-stock products in the form of meats, dairy products, poultry and eggs. These products have not only been required in greater volume to meet requirements of the United Kingdom and other United Nations, but the demand in Canada has expanded sharply as a result of greater purchasing power in the hands of the consumers. Live stock thus makes a very important contribution to farmers' income and also provides the basis for a large slaughtering and meat-packing industry in Canada.

Live-Stock Marketings, 1945.—Three new records were established in commercial live-stock marketings in Canada in 1945. Cattle marketings numbered over 2,000,000 for the first time and calf and sheep marketings also reached new high levels. Hog marketings, however, were the lowest since 1939, and about 3,000,000 head less than in 1944, the record year. Cattle marketed in Canada in 1945 numbered 2,024,025, as compared with 1,528,947 in 1944. Marketings of calves totalled 830,346 as compared with 701,039 in 1944. Marketings of hogs through commercial channels in 1945 totalled 5,867,276 as compared with 8,863,830 in 1944. Marketings of sheep and lambs were 1,254,672 in 1945 as compared with 1,050,953 in 1944.

The interprovincial and export movement of all classes of live stock, except hogs, in 1945 showed increases over the previous year. Total shipments in 1945 with figures for 1944, in parentheses, were as follows: cattle 742,245 (621,075); calves 247,919 (192,906); hogs 1,094,086 (1,887,092); and sheep 426,288 (377,946).

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* Revised in the Agricultural Division, Dominion Bureau of Statistics. For more detailed information on this subject, see "Live Stock and Animal Products Statistics", published annually by the Dominion Bureau of Statistics; and the "Annual Market Review", published by the Live Stock Branch of the Dominion Department of Agriculture. Statistics of live stock and poultry are given at pp. 351-356 of this volume.

9.—Live Stock Marketed at Stockyards, Packing Plants and Direct for Export, by Provinces, 1945

Live Stock	Maritime Provinces	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	No.	No.	No.	No.	No.	No.	No.	No.
Cattle—								
Totals to stockyards....	1,291	54,429	360,184	134,561	360,088	337,128	14,007	1,261,688
Direct to packers........	13,994	32,058	200,834	76,134	135,009	197,203	44,487	699,719
Direct for export........	4,542	11,789	45,418	53	98	484	234	62,618
Totals, Cattle........	**19,827**	**98,276**	**606,436**	**210,748**	**495,195**	**534,815**	**58,728**	**2,024,025**
Calves—								
Totals to stockyards....	9,547	123,642	152,141	43,285	83,986	46,697	1,589	460,887
Direct to packers........	11,337	91,874	108,392	50,915	27,191	72,164	4,253	366,126
Direct for export........	734	155	2,323	1	17	62	41	3,333
Totals, Calves........	**21,618**	**215,671**	**262,856**	**94,201**	**111,194**	**118,923**	**5,883**	**830,346**
Hogs—								
Totals to stockyards....	1,623	157,878	237,513	45,463	90,912	159,121	1,672	694,182
Direct to packers........	105,581	377,387	1,569,155	441,167	852,004	1,786,993	34,604	5,166,891
Direct for export........	5,889	13	232	18	4	45	2	6,203
Totals, Hogs..........	**113,093**	**535,278**	**1,806,900**	**486,648**	**942,920**	**1,946,159**	**36,278**	**5,867,276**
Sheep and Lambs—								
Totals to stockyards.....	3,068	129,794	156,154	53,928	115,244	75,556	4,424	538,168
Direct to packers........	36,403	95,415	155,916	88,128	44,230	196,836	36,146	653,074
Direct for export........	243	211	3,754	813	1,701	56,562	146	63,430
Totals, Sheep and Lambs..............	**39,714**	**225,420**	**315,824**	**142,869**	**161,175**	**328,954**	**40,716**	**1,254,672**
Store cattle purchased.....	116	1,692	85,594	15,463	12,329	72,257	1,026	188,477

In Table **10** are given the statistics of the grading of animals marketed through stockyards and direct shipments to packing plants for the years 1941 to 1945.

10.—Grades of Live Stock Marketed at Stockyards and Packing Plants, 1941-45

Live Stock	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
Cattle—					
Steers up to 1,050 lb.—					
Choice	11,901	14,711	17,752	25,263	32,871
Good	76,851	86,690	90,000	96,092	116,206
Medium	74,956	76,635	81,891	116,780	163,797
Common	45,251	30,948	44,525	81,954	125,821
Steers over 1,050 lb.—					
Choice	29,345	38,225	63,559	61,865	68,970
Good	52,277	51,084	70,206	85,750	94,285
Medium	24,878	19,912	31,349	53,011	50,322
Common	6,526	3,503	5,771	15,332	10,888
Heifers—					
Choice	8,421	12,147	12,316	14,934	20,655
Good	60,887	68,900	58,485	66,874	96,255
Medium	72,321	57,994	55,622	81,924	115,242
Common	54,814	28,690	33,922	59,125	93,407
Fed Calves—					
Choice	24,484	27,513	18,928	18,510	25,813
Good	45,508	44,118	35,252	34,238	42,276
Medium	40,616	43,468	25,951	32,177	44,908
Cows—					
Good	83,710	93,736	79,358	110,936	157,082
Medium	99,427	98,471	88,722	99,932	151,046
Common	77,106	73,674	69,394	81,480	118,577
Canners and cutters	107,164	82,580	85,902	120,199	165,464
Bulls—					
Good	24,502	26,971	22,914	22,639	34,910
Common	47,299	37,509	40,643	50,194	56,524
Stocker and Feeder Steers—					
Good	66,589	67,047	54,988	52,221	60,726
Common	71,955	60,827	66,256	58,115	59,824
Stock Cows and Heifers—					
Good	12,563	12,350	10,842	11,528	12,450
Common	8,402	6,145	9,173	12,017	14,343
Milkers and springers	11,500	10,885	9,440	7,527	8,486
Unclassified	10,761	22,533	12,312	14,488	20,259
Totals, Cattle	**1,250,014**	**1,197,266**	**1,195,473**	**1,485,105**	**1,961,407**
Calves—					
Veal—					
Good and choice	238,589	236,945	176,241	180,877	233,741
Common and medium	451,288	420,439	378,339	445,295	529,265
Grass	128,208	106,031	86,121	73,032	64,007
Totals, Calves	**818,085**	**763,415**	**640,701**	**699,204**	**827,013**
Hog Carcasses—					
"A"	1,959,970	1,863,491	1,997,226	2,506,115	1,882,513
"B"	3,379,022	3,428,636	3,743,893	4,799,573	3,076,057
"C"	357,946	308,761	342,445	594,824	299,754
"D"	25,092	18,715	17,760	37,815	21,180
"E"	69,371	70,901	82,555	81,011	58,312
Heavies	100,069	197,722	340,463	195,865	107,231
Extra heavies	33,790	55,957	127,244	112,148	85,326
Lights	123,946	17,636	35,589	93,657	61,205
Sows	167,001	266,344	462,246	442,170	269,495
Totals, Hog Carcasses	**6,216,207**	**6,228,163**	**7,149,421**	**8,863,178**	**5,861,073**

10.—Grades of Live Stock Marketed at Stockyards and Packing Plants, 1941-45 —concluded

Live Stock	1941	1942	1943	1944	1945
	No.	No.	No.	No.	No.
Lambs and Sheep Graded Alive—					
Lambs—					
Good handyweights	542,967	568,726	553,751	596,275	679,080
Good heavies	27,479	14,428	17,608	15,687	19,209
Common, all weights	96,964	96,238	113,895	207,036	193,499
Bucks	52,527	52,462	52,332	63,309	54,123
Sheep—					
Good heavies	13,868	16,725	26,207	19,801	35,153
Good handyweights	50,263	44,479	68,081	42,685	116,562
Common	30,955	27,095	44,517	40,365	57,544
Unclassified	10,744	8,940	8,239	5,240	15,546
Totals, Lambs and Sheep	**825,767**	**829,093**	**884,630**	**990,398**	**1,170,716**
Lamb and Sheep Carcasses—[1]					
Lambs—					
"A"	-	-	-	4,650	10,884
"B"	-	-	-	2,880	5,222
"C"	-	-	-	1,836	2,021
"D"	-	-	-	425	355
Sheep	-	-	-	1,471	2,044
Totals, Lamb and Sheep Carcasses	-	-	-	**11,262**	**20,526**

[1] First graded as such in 1944.

Slaughtering and Meat Packing.—The growth of this industry has been accompanied by a concentration of the major part of the production of the industry into a comparatively small number of large establishments, thereby facilitating greater efficiency of operation and the utilization of by-products. The large increase in the number of establishments since 1930, only 76 firms having reported in that year whereas in 1931 the number was 147, is due to the inclusion of wholesale butchers operating small plants engaged in slaughtering only. The inclusion of these small establishments did not affect materially the value of production of the industry, which increased from $3,799,552 in 1870 to $7,132,831 in 1890 and to $22,217,984 in 1900. In the next decade it more than doubled, attaining a value of $48,527,076 in 1910, and by 1920 a value of $240,544,618 was reported. In 1945 it was $504,849,523 as compared with $228,500,487 in 1940. The principal statistics of the industry for 1944 appear in the Manufactures Chapter, Table 9 at pp. 528-533. The slaughterings reported by establishments in the industry in 1945 were: cattle 1,887,693, calves 829,850, lambs and sheep 1,159,962, and hogs 6,033,003.

Establishments that prepare meat products for export are subject to inspection under the Meat and Canned Foods Act. In practice these include all the principal packing establishments but do not include local wholesale butchers included in the slaughtering and meat-packing industry above, nor slaughtering by retail butchers and by farmers for their own use and local sale.

11.—Live Stock Slaughtered at Canadian Inspected Establishments, by Months, 1944 and 1945

Month	1944				1945			
	Cattle	Calves	Sheep	Hogs	Cattle	Calves	Sheep	Hogs
	No.	No.	No.	No.	No.	No.	No.	No.
January	90,432	26,663	68,437	941,129	159,341	33,780	73,955	756,572
February	93,794	28,367	56,037	933,991	128,110	34,176	56,775	562,806
March	101,732	55,160	74,692	932,318	126,186	77,858	45,174	599,822
April	93,525	82,040	49,875	793,326	114,587	107,324	24,404	539,864
May	101,932	89,832	35,471	855,324	107,526	102,360	18,655	494,488
June	89,352	71,892	33,363	682,783	98,222	81,600	44,200	377,944
July	95,155	62,271	46,326	529,607	107,003	74,789	65,405	310,291
August	116,722	60,235	96,252	451,712	143,745	64,240	130,084	298,918
September	125,159	52,965	123,298	440,050	180,584	59,915	159,718	299,186
October	132,788	51,970	145,912	610,076	224,173	60,255	253,383	454,538
November	160,013	46,699	145,683	828,409	250,280	59,881	228,199	527,794
December	153,517	33,151	83,823	767,692	179,267	31,448	85,209	459,406
Totals	**1,354,121**	**661,245**	**959,169**	**8,766,417**	**1,819,024**	**787,626**	**1,185,161**	**5,681,629**

Meat Consumption.—The estimates of per capita meat consumption shown in Table **12** represent the consumption of the civilian population only. In order to arrive at a proper comparison of meat consumption during 1940-45 with the years before the War, figures of supply were revised to compensate for amounts of meat used for non-civilian purposes. These deductions included purchases by the Department of Munitions and Supply for the Army, Navy and Air Force, supplies for ships' stores, Red Cross parcels and other similar uses.

The Canadian population figures used to arrive at the per capita consumption estimates were also adjusted for the members of the Armed Forces serving outside of Canada and living in barracks in Canada. All estimates in Table **12** are on a carcass weight basis except canned meats which are in terms of the product.

12.—Supply, Distribution and Civilian Consumption of Meats and Lard, 1942-46, with Five-Year Averages, 1935-39

Item		Average 1935-39	1942	1943	1944	1945[1]	1946
Beef—							
Animals slaughtered in Canada.	'000	1,347·0	1,561·9	1,803·9	1,958·7	2,420·1	2,266·3
Estimated dressed weight	'000 lb.	618,556	743,756	863,175	932,831	1,119,662	1,053,339
On hand, Jan. 1	"	22,684	32,209	29,204	35,637	31,831	40,842
Imports	"	158[2]	915	375	23	2	6
Totals, Supply	"	641,398	776,880	892,754	968,491	1,151,495	1,094,187
Exports	"	10,899	15,961	13,549	107,411[1]	194,754	136,063
Used for canning	"	1,406	8,212	5,993	14,181	116,302	88,480
On hand, Dec. 31	"	24,040	29,204	35,637	31,831	40,842	30,551
Used by non-civilians	"	Nil	51,911	63,418	64,546	65,000	18,218
TOTALS, CIVILIAN CONSUMPTION	"	605,053	671,592	774,157	750,522[1]	734,597	820,875
Civilian consumption per capita.	lb.	54·7	60·1	69·3	66·6[1]	64·6	67·2
Veal—							
Animals slaughtered in Canada.	'000	1,333·6	1,333·8	1,204·0	1,373·0	1,493·8	1,464·8
Estimated dressed weight	'000 lb.	116,372	118,311	118,209	125,993	141,391	132,022
On hand, Jan. 1	"	3,452	6,237	2,308	5,419	5,155	5,348
Imports	"	[3]	[3]	[3]	[3]	[3]	[3]
Totals, Supply	"	119,824	124,548	120,517	131,412	146,546	137,370
Exports	"	Nil	Nil	Nil	Nil	Nil	Nil
Used for canning	"	22	27	23	25	2,195	5,459
On hand, Dec. 31	"	3,785	2,308	5,419	5,155	5,348	3,427
Used by non-civilians	"	Nil	1,115	1,451	2,735	4,000	481
TOTALS, CIVILIAN CONSUMPTION	"	116,017	121,098	113,624	123,497	135,003	128,003
Civilian consumption per capita.	lb.	10·5	10·8	10·2	11·0	11·9	10·5

For footnotes, see end of table, p. 821.

12.—Supply, Distribution and Civilian Consumption of Meats and Lard, 1942-46, with Five-Year Averages, 1935-39—concluded

Item	Average 1935-39	1942	1943	1944	1945[1]	1946
Pork—						
Animals slaughtered in Canada. '000	5,165·1	9,283·3	10,550·8	11,421·5	8,683·7	6,503·5
Estimated dressed weight.....'000 lb.	620,522	1,188,295	1,394,400	1,503,257	1,111,607	823,846
On hand, Jan. 1................ "	34,511	71,562	55,650	85,472	48,852	33,072
Imports....................... "	7,394	937	2,306	665	17	726
Totals, Supply................. "	662,427	1,260,794	1,452,356	1,589,394	1,160,476	857,644
Exports....................... "	179,630	537,431	587,475	717,714	462,049	297,871
Used for canning............... "	4,495	32,132	53,764	91,438	46,116	52,143
On hand, Dec. 31.............. "	37,863	55,650	85,472	48,852	33,072	38,600
Used by non-civilians.......... "	Nil	39,025	44,088	39,948	40,000	6,506
Totals, Civilian Consumption "	440,439	596,556	681,557	691,442	579,239	462,524
Civilian consumption per capita. lb.	39·9[1]	53·3	61·0	61·4	50·9	37·9
Mutton and Lamb—						
Animals slaughtered in Canada '000	1,543·0	1,369·0	1,508·5	1,415·0	1,634·1	1,673·5
Estimated dressed weight.....'000 lb.	61,417	56,473	62,092	57,727	69,008	71,249
On hand, Jan. 1................ "	6,190	6,861	5,054	9,419	6,930	7,778
Imports....................... "	422	2,010	29	Nil	Nil	Nil
Totals, Supply................. "	68,029	65,344	67,175	67,146	75,938	79,027
Exports....................... "	248	628	891	1,589	7,951	11,268
Used for canning............... "	37	133	129	218	1,563	1,303
On hand, Dec. 31.............. "	5,965	5,054	9,419	6,930	7,778	7,070
Used by non-civilians.......... "	Nil	3,763	5,055	3,912	4,800	578
Totals, Civilian Consumption "	61,779	55,766	51,681	54,497	53,846	58,808
Civilian consumption per capita. lb.	5·6	5·0	4·6	4·8	4·7	4·8
Canned Meats—						
Estimated production..........'000 lb.	5,624	34,547	47,794	77,460	199,017	191,016
Imports....................... "	12,292	4,555	5,640	5,685	656	1
Change in stocks[5]............. "	[4]	[4]	+998	+7,707	+50,000	Nil
Totals, Supply................. "	17,916	39,102	52,436	75,438	149,673	191,017
Exports....................... "	1,999	9,761	18,820	39,707	98,704	148,349
Used by non-civilians.......... "	Nil	4,013	7,681	12,495	10,000	Nil
Totals, Civilian Consumption "	15,917	25,328	25,935	23,236	40,969	42,668
Civilian consumption per capita. lb.	1·4	2·3	2·3	2·1	3·6	3·5
Offals—						
Estimated production..........'000 lb.	64,611	89,036	98,770	108,765	107,096	92,539
Imports....................... "	[4]	167	10	Nil	Nil	Nil
Totals, Supply................. "	64,611	89,203	98,780	108,765	107,096	92,539
Exports....................... "	[4]	12,927	9,595	14,700	10,839	5,264
Used for canning............... "	583	3,306	5,268	7,870	25,550	27,191
Used by non-civilians.......... "	Nil	1,839	2,411	3,196	2,000	242
Totals, Civilian Consumption "	64,028	71,131	81,506	82,999	68,707	59,842
Civilian consumption per capita. lb.	5·8	6·4	7·3	7·4	6·0	4·9
Lard—						
Estimated production..........'000 lb.	63,237	106,372	119,884	140,753	94,328	58,363
On hand, Jan. 1................ "	2,685	6,674	2,852	5,481	4,961	972
Imports....................... "	56	1	Nil	[4]	[4]	5,000[7]
Totals, Supply................. "	65,978	113,047	122,736	146,234[1]	99,289	64,335
Exports....................... "	19,485	1,612	734	32,310	3,110	442
Used for canning............... "	75	398	27	13,022[6]	8,990	2,694
On hand, Dec. 31............ "	2,963	2,852	5,481	4,961	972	1,455
Used by non-civilians.......... "	Nil	511	619	2,262	1,000	500
Totals, Civilian Consumption "	43,455	107,674	115,875	93,679	85,217	59,244
Civilian consumption per capita. lb.	3·9	9·6	10·4	8·3	7·5	4·9

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[1] Revised since the publication of the 1946 Year Book. [2] Includes edible offal of beef and veal. [3] Not available separately; quantity small and included with imports of beef. [4] Not available. [5] The positive changes in stocks represent deductions from the available supply during a given year and therefore are subtracted. [6] Includes lard used in shortening. [7] Estimated.

Section 5.—Cold Storage

Cold-Storage Warehouses.—Under the Cold Storage Act, 1907 (6-7 Edw. VII, c. 6; now consolidated as c. 25, R.S.C., 1927), subsidies have been granted by the Federal Government to encourage the construction and equipment of cold-storage warehouses open to the public: the Act and regulations made thereunder is administered by the Department of Agriculture.

13.—Cold-Storage Warehouses in Canada, by Provinces, 1945

Note.—The figures in this table, which do not include creameries with mechanical refrigeration, were supplied by J. F. Singleton, Associate Director, Marketing Service, Dairy Products Division, Dominion Department of Agriculture.

Province	Subsidized Public Warehouses				All Warehouses	
	Number	Refrigerated Space	Cost	Total Subsidy	Number	Refrigerated Space
		cu. ft.	$	$		cu. ft.
Prince Edward Island	6	264,666	134,101	39,774	11	317,711
Nova Scotia	13	3,263,328	3,038,994	902,418	35	4,087,480
New Brunswick	6	1,395,192	584,806	175,441	17	1,618,319
Quebec	15	577,841	661,708	198,511	102	12,213,727
Ontario	51	6,485,807	3,938,550	1,175,541	231	22,206,991
Manitoba	7	2,299,998	1,655,360	496,156	24	6,682,658
Saskatchewan	4	441,868	268,707	80,612	30	1,638,551
Alberta	4	409,471	351,500	105,450	16	3,642,580
British Columbia	49	12,777,336	3,927,779	1,178,334	108	21,103,034
Totals	**155**	**27,915,507**	**14,561,505**	**4,352,237**	**574**	**73,511,051**

Cold-Storage Stocks.—Since 1917 statistics of stocks on hand of food commodities in cold storage have been published but throughout the years the data have been expanded by many subdivisions of the products and by the inclusion of more foods. Monthly and annual reports issued by the Agricultural Division of the Dominion Bureau of Statistics give detailed information on cold-storage holdings.

14.—Stocks of Food of Canadian Origin on Hand in Cold-Storage Warehouses, in Other Warehouses and in Dairy Factories, 1946

Commodity	As at Jan. 1	Minimum During Year	Date at which Minimum Occurred	Maximum During Year	Date at which Maximum Occurred	Average 12 Months
Butter (creamery, dairy and whey) '000 lb.	35,965	5,275	Apr. 1	70,742	Oct. 1	38,078
Cheese (factory) "	26,522	18,059	Apr. 1	52,213	Aug. 1	32,135
Evaporated whole milk "	18,423	6,963	Mar. 1	29,334	Sept. 1	18,804
Skim-milk powder "	1,823	734	Apr. 1	5,194	Sept. 1	2,723
Eggs—						
Shell '000 doz.	1,953	1,462	Dec. 1	16,208	July 1	8,298
Frozen '000 lb.	8,679	3,840	Apr. 1	10,614	Sept. 1	7,479
Poultry (dressed) "	16,319	3,387	June 1	26,166	Dec. 1	10,698
Pork—						
Fresh "	4,833	3,261	Sept. 1	5,735	Dec. 1	4,431
Frozen "	10,837	3,020	Oct. 1	37,001	June 1	19,375
Cured and in cure "	17,402	12,005	Oct. 1	17,589	Apr. 1	15,816
Lard "	972	595	Oct. 1	1,517	Mar. 1	1,076

14.—Stocks of Food of Canadian Origin on Hand in Cold-Storage Warehouses, in Other Warehouses and in Dairy Factories, 1946—concluded

Commodity		As at Jan. 1	Minimum During Year	Date at which Minimum Occurred	Maximum During Year	Date at which Maximum Occurred	Average 12 Months
Beef—							
Fresh	'000 lb.	9,509	3,447	May 1	11,973	Dec. 1	8,110
Frozen	"	26,817	4,753	Aug. 1	26,817	Jan. 1	12,395
Cured, etc	"	680	381	June 1	1,165	Dec. 1	735
Veal	"	5,348	1,855	Mar. 1	5,348	Jan. 1	3,724
Mutton and lamb	"	7,778	841	July 1	7,778	Jan. 1	3,958
Fish—							
Frozen fresh	"	27,730	15,537	May 1	45,767	Sept. 1	30,697
Frozen smoked	"	1,781	1,131	Mar. 1	3,260	Sept. 1	2,132
Fruit—							
Apples (fresh)	'000 bu.	1,736	3	July 1	7,361	Dec. 1	6,024
Frozen fruit	'000 lb.	9,511	4,165	June 1	14,116	Oct. 1	9,478
In preservatives	"	16,360	8,813	June 1	21,031	Oct. 1	14,946
Potatoes	ton	245,538	1,509	Aug. 1	535,977	Dec. 1	111,911

Section 6.—Merchandising and Service Establishments*

Two comprehensive surveys have been made of the business carried on by retail and wholesale trading establishments in Canada. The first census of this type was undertaken in 1931, in connection with the Seventh Decennial Census. This Census related to the business transacted in 1930, and covered the operations of service establishments, including hotels, in addition to wholesale and retail trading firms. The results for 1930 are contained in Volumes X and XI of the Census of 1931. A second Census of Merchandising and Service Establishments, taken in 1941 as part of the Eighth Decennial Census, related to the business transacted in the census year. The results of that Census, in so far as retail trade is concerned, are given in the 1941 Census Volume X, while the results for wholesale and service establishments are contained in Volume XI.

A summary of the main features of the retail and wholesale marketing structure of the country, as revealed by the Census, is presented in the following Subsections. This information is given in more detail at pp. 597-621 of the 1945 Year Book.

Subsection 1.—Wholesale Merchandising

Wholesale trade, for census purposes, has been taken to include all agencies of distribution between the producer on the one hand and the retailer or industrial or other large user on the other hand. It does not include manufacturing plants but does include manufacturers' sales branches or offices operated at locations apart from plants. In addition to regular wholesalers (including exporters and importers), agents, brokers and commission merchants have been included, as well as assemblers of primary products, such as co-operative marketing associations, grain elevators, and city or country buyers of primary products. The wholesale trade census also includes the bulk tank stations operated by distributors of petroleum products.

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* Revised under the direction of W. H. Losee, Director, Census of Industry and Merchandising Division, Dominion Bureau of Statistics, by A. C. Steedman, Chief, Merchandising and Services Statistics.

In all, 24,758 wholesale establishments were recorded in the results of the 1941 Census and these provided employment for 117,471 persons who received $189,449,000 in salaries, wages and commissions. In addition, there were 13,656 proprietors of unincorporated firms employed in wholesale trading. An aggregate volume of business amounting to $5,290,751,000 was reported for these wholesale establishments, of which $4,278,342,000 represented sales made by the reporting firms on their own account and $1,012,409,000 represented sales made on commission for others.

Since one type of wholesaler may sell to another, there is some duplication in the aggregate sales volume of all wholesalers. Nor can the volume of wholesale trade be related to retail trade, since a considerable portion of the business of wholesalers is done with industrial or large users or with foreign buyers and thus never enters the retail field.

Wholesalers are classified on various bases such as according to amount of annual sales, number of employees, form of organization, number of marketing units, etc. The two fundamental bases for classification, however, are by type of operation and by kind of business.

Type of Operation.—Wholesale establishments have been classified primarily by type of operation, that is, according to functions performed, 31 individual types having been grouped into six major classifications. Wholesalers proper, consisting of firms performing most of the functions of wholesalers, such as buying and selling on their own account, extending credit, providing delivery service, etc., form the most important major group. This group, in addition to regular wholesale merchants, includes importers and exporters of merchandise and also voluntary group wholesalers who service a particular group of more or less closely associated retail stores. There were 9,417 establishments classified as wholesalers proper in 1941, and these had sales of $2,358,475,000 or 44·6 p.c. of the aggregate wholesale sales and employed 74,800 persons who received $117,390,000 in salaries, wages and commissions.

The next largest group in volume of business was manufacturers' sales branches or offices maintained at locations apart from plants and whose sales amounted to $1,206,994,000 or 22·8 p.c. of total wholesale sales. These 1,622 establishments provided employment for 20,782 persons with salaries, wages and commissions of $40,034,000.

Agents and brokers, composed of manufacturers' agents, commission merchants, import and export agents, brokers, etc., doing business on a commission basis for others and, as a rule, carrying no stocks, accounted for $907,520,000 sales or 17·2 p.c. of the total sales of all wholesalers. Salaries to 4,423 employees in this group of wholesalers, totalled $8,677,000.

Establishments numbering 7,366 with a sales volume of $453,301,000 or 8·6 p.c. of the total were classified as assemblers of primary products. This group includes firms engaged in the assembling and distributing of farm and other primary products, such as co-operative marketing associations and sales agencies, grain elevators, and city or country buyers of primary products who purchase directly from producers. This type employed 10,499 persons to whom salaries, wages and commissions of $13,356,000 were paid.

The 3,973 petroleum bulk tank stations engaged in the distribution of petroleum products by tank car to retailers and such users as farmers, fishermen and small industrial users transacted a business of $216,292,000, constituting 4·1 p.c. of the total wholesale trade, and paid $6,890,000 to 4,968 employees.

The sixth major group is a residual class including all other types, such as film exchanges, distributing warehouses and government-owned companies. These numbered 274 establishments, which had sales of $148,168,000 and provided employment for 1,999 persons who received $3,102,000 in salaries and wages.

Kind of Business.—The other major basis for classification used in the wholesale census was by kind of business, according to the main commodity or commodities handled. There were about 150 individual kind-of-business classifications and these were grouped under 25 major classifications. Among wholesalers proper, the largest volume of business in 1941 was transacted by the groceries and food specialties group, with sales of $347,472,000, followed by the food products (except groceries) group with sales of $237,935,000. Next in importance, in point of view of sales, amounting to $207,856,000, was the machinery group. The most important trade according to volume of sales among manufacturers' sales branches was the metals and metal work classification with 75 establishments doing a business of $177,152,000. Important, also, in this type were the sales of dry goods and apparel, electrical goods, petroleum products and groceries and food specialties trades. The farm products (raw materials) group doing a business of $364,277,000 formed the most important kind-of-business classification among the agents and brokers so far as volume of business is concerned, followed by the dry goods and apparel group with a sales volume of $116,914,000 but with a greater number of establishments participating. Assemblers of primary products were concentrated in the farm products (raw materials) trade; this kind of business accounted for 6,333 establishments and had sales of $368,355,000. The food products (except groceries) trade was the other important kind-of-business classification found in the assemblers group and this trade accounted for sales of $73,777,000.

Provincial Distribution.—Almost two-thirds of the total wholesale trade of Canada was at the date of the Census, concentrated in the Provinces of Ontario and Quebec, the former having sales valued at $1,744,664,000 or 33 p.c. of total sales and the latter, sales of $1,726,521,000 or 32·6 p.c. of the total. Manitoba came next with $579,613,000 or 11 p.c., while British Columbia accounted for 7·2 p.c.; Alberta, 6·1 p.c.; Saskatchewan, 5·3 p.c.; Nova Scotia, 2·9 p.c.; New Brunswick, 1·7 p.c.; and Prince Edward Island, less than 1 p.c.

The proportion of the total trade transacted in each province varied for the different major types into which the wholesale field is divided. For wholesalers proper, Quebec came first in 1941 with 36·0 p.c. of the total trade, followed closely by Ontario with 34·7 p.c. The Prairie Provinces accounted for 15·4 p.c., British Columbia for 8·1 p.c. and the Maritime Provinces for the remaining 5·8 p.c. Apart from a slightly greater concentration in Quebec and Ontario, the distribution of sales for manufacturers' sales branches was similar to that for wholesalers proper. On the other hand, the Prairie Provinces occupied a much more important role in the other categories. They accounted for 29·3 p.c. of the total sales of all petroleum bulk tank stations, 34·2 p.c. of the sales of all agents and brokers and 66·4 p.c. of the total business done by all assemblers of primary products.

Miscellaneous Analyses.—Wholesale data are also analysed by size of business, number of employees, form of organization, type of purchaser, etc. These analyses are summarized at pp. 606-607 of the 1946 Year Book.

Subsection 2.—Retail Merchandise Trade

Extent of the Known Retail Trade.—The total known retail merchandise trade in Canada for 1941, as recorded in the results of the Merchandising Census, was valued at $3,667,715,600 or an average of $319 per person. By far the greatest proportion of this business was transacted through retail stores. The total sales volume of business transacted by retail stores in 1941 was $3,440,901,700, but included in this figure are certain components that cannot be considered as retail merchandise sales. Some retail stores secure a minor proportion of their total revenue from repair work while others sell merchandise on a wholesale basis to a limited extent. On deducting these subsidiary amounts from the over-all turnover of $3,440,901,700, there remains a figure of $3,354,499,100 which represents retail merchandise sales through retail stores.

In addition to the business done by retail stores, sales of merchandise at retail are made by some other types. Hotels sell meals, alcoholic beverages, tobacco, magazines, etc. Wholesale establishments transact a small volume of retail business. Some manufacturing plants, particularly manufacturing bakeries and dairies, sell directly to the ultimate consumer. Co-operative associations and line elevator companies are engaged in the retail distribution of farmers' supplies. Retail sales are made by itinerant operators and also by persons carrying on a retail business from their homes as a minor activity in conjunction with their main occupation.

Retail business of the types mentioned above was measured in the 1941 Census and is summarized in Table **15**. The two chief unmeasured elements in the total retail trade are the sales made on farmers' markets in urban centres and the sales made direct to householders by producer-distributors of dairy products.

15.—Total Recorded Retail Merchandise Trade, 1941

Item	Amount	P.C. of Total	Item	Amount	P.C. of Total
	$			$	
Retail stores	3,354,499,100	91·46	Sales of farmers' supplies by co-operative associations and line elevators	21,304,200	0·58
Hotel sales of meals, alcoholic beverages, tobacco, etc.	109,022,100	2·98	Sales by itinerant operators	13,286,500	0·36
Retail sales by wholesalers	60,265,300	1·64	Merchandise sales by service establishments	10,347,200	0·28
Retail sales by manufacturing bakeries and dairies	93,049,700	2·54	Other known retail sales	5,941,500	0·16
			Total Recorded Retail Merchandise Trade	**3,667,715,600**	**100·00**

Summary Statistics of Retail Stores.—The remainder of this Section is confined to an analysis of the operations of retail stores as considered in the broader sense to include not only stores but also gasoline filling stations, restaurants, lumber yards and all other types of outlets engaged chiefly in the sale of merchandise at retail. Including all such types, there were 137,331 retail outlets recorded in the 1941 Census. These required the services of 297,047 full-time and 95,561 part-time employees to whom $314,438,000 was paid in salaries and wages. In addition, there were 131,823 proprietors of unincorporated firms working on their own account. Annual sales totalled $3,440,902,000 and year-end stocks were valued at $540,864,000.

16.—Summary of Retail Merchandise Trade, by Provinces, 1941

Province or Territory	Stores	Proprietors	Employees		Salaries and Wages	Sales	Stocks at Dec. 31, 1941
			Full-time	Part-time			
	No.	No.	No.	No.	$'000	$'000	$'000
Prince Edward Island	863	859	1,425	308	1,135	15,936	3,495
Nova Scotia	6,790	6,250	13,357	3,938	12,959	165,034	23,776
New Brunswick	4,988	4,629	9,004	2,058	8,335	101,843	17,209
Quebec	39,712	38,574	74,562	22,187	72,380	818,671	138,807
Ontario	47,055	44,891	121,042	44,800	134,730	1,406,977	206,162
Manitoba	7,219	7,058	20,387	5,069	20,215	210,833	30,020
Saskatchewan	10,088	9,644	14,641	4,611	14,550	186,886	37,262
Alberta	9,222	9,186	16,760	4,639	18,817	221,071	37,511
British Columbia	11,253	10,658	25,649	7,920	30,964	309,573	44,958
Yukon and N.W. Territories	141	74	220	31	353	4,078	1,664
Canada	**137,331**	**131,823**	**297,047**	**95,561**	**314,438**	**3,440,902**	**540,864**

Large-Scale Merchandising.—The development of large-scale merchandising in Canada has, on the whole, followed the same trend as shown by other countries. Large establishments, such as department stores, had shown marked development prior to 1930, but this trend did not continue between 1930 and 1941. The chain-store system of distribution is important, especially in such lines as grocery and meat and variety stores.

Although chain and department stores accounted for a considerable proportion of the retail trade in Canada, the bulk of retail business was transacted through independent outlets in 1941. The relative position of chain-store sales changed very slightly between the two census years, chain-store sales forming 18·3 p.c. of all retail trade in 1930 and 18·7 p.c. in 1941. Department stores gave way to a very small degree in favour of independent stores. Department stores transacted 12·9 p.c. and 11·0 p.c. of the retail sales in 1930 and 1941, respectively, while the percentage of the total retail trade transacted by independent stores increased from 68·8 p.c. in 1930 to 70·3 p.c. in 1941.

An analysis by kind of business revealed that some trades were predominantly independent store fields. Independently operated country general stores accounted for 96·2 p.c. of the sales of all such stores, while sales of independent filling stations formed 91·4 p.c. of the total for that business. Men's and women's specialty clothing stores, restaurants, tobacco stores and stands, grocery stores, and drug stores are other trades in which independent merchants far outweighed chain companies, and over 80 p.c. of the business for these was done through the independent type of retail outlet. The independent shoe store was the major type of operation in that trade in 1941, transacting 62·7 p.c. of the business, but this proportion was considerably smaller than the 77·3 p.c. done by independent stores in 1930, indicating an expansion in the chain shoe business during the intercensal period.

Tables showing the relative positions of independent, chain and department stores, by economic divisions, 1930 and 1941, as well as retail merchandise trade in all stores by selected kinds of business and by types of operation, 1930 and 1941, are given at pp. 609-610 of the 1945 Year Book.

Chain Stores.—For census purposes, chains are taken to mean all groups of four or more stores (except department stores) under the same ownership and management and carrying on the same kind of business. All department stores are considered as independents irrespective of the number of stores operated by any one company.

The 532 chain companies operating 8,011 stores transacted 18·7 p.c. of the total retail trade in the census year. Variety stores were operated chiefly on a chain basis, variety chain-store sales forming 86·9 p.c. of the total.

Retail Merchandise Trade in Urban Centres.—The greatest proportion of retail trade in 1941 was transacted in the urban centres, having populations of 100,000 or over. While these cities had 23 p.c. of Canada's population, their sales amounted to 40 p.c. of the retail sales transacted in the census year. At the other end of the scale, the small villages and rural areas, places of less than 1,000 population, accounted for 49 p.c. of the population and only 17 p.c. of the retail trading. Urban centres falling in the 1,000 to 30,000 grouping and representing 20 p.c. of the population transacted 29 p.c. of the total retail sales. Cities of the 30,000 to 100,000 population class, housed 8 p.c. of the persons in Canada and transacted 14 p.c. of the sales. It should be pointed out that sales are attributed to the centres where the purchases are made, rather than to the areas from which that business is drawn. Thus, it becomes apparent that many urban centres act as distributing points for surrounding areas, and that the business attributed to these cities does not necessarily reflect the consumer demand within the city.

The intercensal expansion of population, stores, and sales for all cities of over 10,000 population in 1941 is given at pp. 611-612 of the 1945 Year Book.

Commodity Distribution of Consumer Dollar.—In 1941 food products came first in point of view of dollar sales accounting for 26·8 p.c. of the total expenditure. Automotive products, including not only purchases of new and used motor-vehicles but also gasoline and oil, tires and tubes, parts and accessories, came second forming 15·2 p.c. of the total. Clothing and shoes came third with 14·6 p.c. followed by household effects with 8·3 p.c. Sales of alcoholic beverages amounted to 6·6 p.c.; building materials, 4·7 p.c.; receipts from the sale of meals, 4·2 p.c.; fuel, 3·1 p.c.; drugs, drug sundries and toilet goods, 2·3 p.c.; piece goods, notions and smallwares, 1·8 p.c.; and other merchandise, 12·4 p.c.

Miscellaneous Analyses.—Retail data are also analysed by size of business, number of employees, etc. These analyses are outlined at p. 611 of the 1946 Year Book but are given in greater detail at pp. 604-615 of the 1945 edition and in the 1941 Census Volume X.

Subsection 3.—Retail Service Establishments

The Census of Merchandising and Service Establishments included in its scope not only firms engaged in the retail and wholesale merchandise trades but also a large number of different types of service establishments in which the annual revenue represented receipts from services performed rather than from the sale of merchandise. A considerable number of firms overlap these two functions, being engaged partially in selling goods and partially in providing services. Establishments were assigned in their entirety to either the merchandising or service section of the census on the basis of their major activity as measured in terms of annual receipts.

There were 49,271 service establishments which came within the scope of the 1941 Census with receipts of $254,678,000 as compared with 42,223 service establishments with receipts of $249,455,900 in 1930. Service establishments in 1941 gave employment to 62,781 full-time employees and to 21,647 persons on a part-time basis and spent $62,984,000 in salaries and wages.

There was a marked expansion both in the number and receipts of beauty parlours between 1930 and 1941. For 1930, the results showed 2,385 beauty parlours with $6,109,300 receipts as compared with 5,619 beauty parlours operating in 1941 and having receipts of $12,884,400. Receipts of establishments in the photographic group increased from $5,078,600 in 1930 to $6,901,300 in 1941, revealing a major development in photographers' services. Results of the 1941 Census also showed an amount of $43,329,800 spent for laundry and dry cleaning services while receipts for such services in 1930 amounted to $33,944,500. Repair shops, including jewellery and watch repairs, automobile and bicycle repairs, blacksmith shops, and upholstery and furniture services, had receipts of $37,512,100 in 1941.

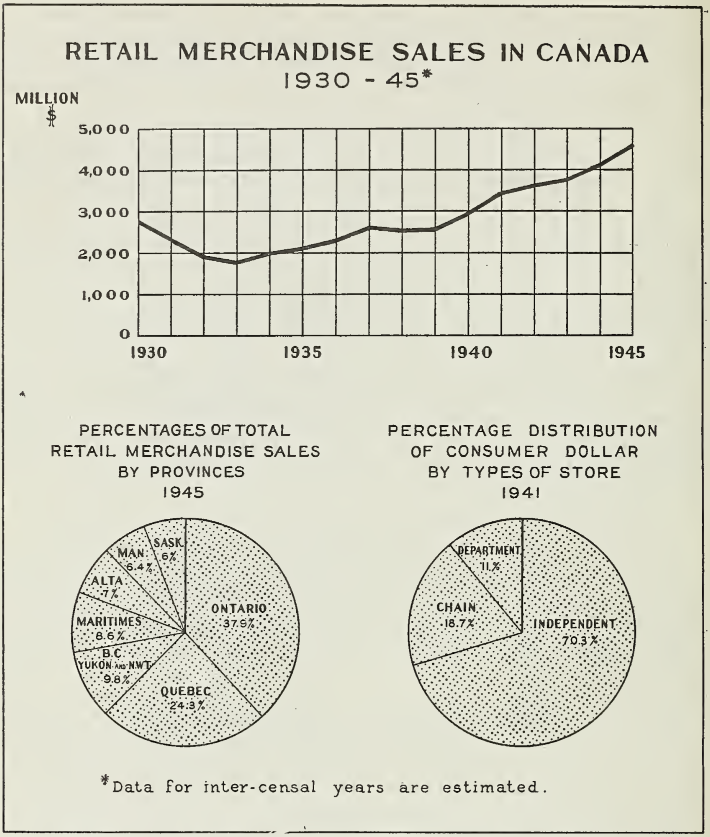
Hotels.—Results of the census of hotels for 1941 showed 5,646 hotels in Canada with annual receipts of $147,488,156, of which $78,695,770 or 53 p.c. represented the sale of alcoholic beverages, $57,706,350 or 39 p.c. was obtained from room rentals and the sale of meals while the remaining 8 p.c. represented receipts from miscellaneous sources. More detailed information on hotels is given at p. 612 of the 1946 Year Book.

Subsection 4.—Current Merchandising and Service Statistics

A complete census of all trading establishments is a major undertaking and it is not possible to survey the entire field annually. Measurements of the more significant post-census trends and developments are effected through the medium of a series of annual, monthly and special projects. The following paragraphs review results of the most recent analyses of various aspects of Canadian merchandising.

Wholesale Trade.—Current trends in wholesale trade are recorded by monthly indexes of sales based on reports from a representative sample of wholesale merchants in nine lines of consumer goods. The trades covered in this survey are automotive equipment, drugs, clothing, footwear, dry goods, fruits and vegetables, grocery, hardware, and tobacco and confectionery. Composite sales indexes for these kinds of business (on the base 1935-39=100,) averaged 141·9 for 1941, 156·2 for 1942, 168·2 for 1943, 185·9 for 1944 and 205·3 for 1945. Using 1941 as a base, the indexes indicate that the dollar sales volume of wholesalers in the nine lines covered by the survey was up 10·1 p.c. in 1942, 18·5 p.c. in 1943, 31·0 p.c. in 1944 and 44·7 p.c. in 1945. The upward trend continued in 1946, sales in the first ten months being 20 p.c. higher than in the corresponding period of 1945.

Retail Trade.—Total sales of retail stores in Canada for the year 1945 were estimated to be $4,591,885,000, 11 p.c. above sales in 1944 and 33 p.c. greater than sales in the census year, 1941. Sales expansion since 1941 has been most pronounced in country general stores, hardware and building materials, restaurants, jewellery stores, alcoholic beverage outlets and tobacco stores, all of which had sales in 1945 exceeding 1941 figures by more than 60 p.c. More moderate increases were experienced by most other kinds of retail establishments during the same interval, although the automotive trades constituted an exception to this trend. Dollar sales for the combined automotive trades in 1945 were 28·9 p.c. below 1941 volume, the reduction from the census year resulting chiefly from the very



RETAIL MERCHANDISE SALES IN CANADA
1930 - 45*

PERCENTAGES OF TOTAL RETAIL MERCHANDISE SALES BY PROVINCES 1945

PERCENTAGE DISTRIBUTION OF CONSUMER DOLLAR BY TYPES OF STORE 1941

*Data for inter-censal years are estimated.

limited distribution of new motor-vehicle sales in the most recent year. Of the total retail trade in 1945, 19 p.c., or $877,895,900, was handled through the 6,725 outlets operated by 426 chain companies.

Estimates of sales for the years 1930 and 1941 together with indexes of retail sales for 1931-41, by provinces and for certain kinds of business, appear at p. 614 of the 1946 Year Book. Table **17** gives the indexes for 1931-45.

17.—Indexes of Retail Sales in Canada, 1931-45

(1930=100)

Year	Index	Year	Index
1931	84·3	1939	94·3
1932	69·8	1940	107·3
1933	64·8	1941	124·9
1934	72·5	1942	132·4
1935	76·9	1943	137·4
1936	83·7	1944	149·6
1937	94·8	1945	166·7
1938	92·5		

18.—Estimated Retail Merchandise Sales, by Provinces and by Kinds of Business, 1943-45

NOTE.—Group totals may include kinds of business for which separate figures are not shown. Chain store figures are included in this table, but are also given in detail in Table 19.

Province and Kind of Business	1943	1944	1945	P.C. Change 1945 from 1944
	$'000	$'000	$'000	
Province				
Maritime Provinces	324,708	359,566	394,297	+9·7
Quebec	931,388	1,001,963[1]	1,117,363	+11·5
Ontario	1,449,638	1,558,510	1,742,409	+11·8
Manitoba	239,403	264,982	292,735	+10·5
Saskatchewan	213,311	248,031	277,466	+11·9
Alberta	263,990	292,622	321,250	+9·8
British Columbia	355,788	390,584	438,838	+12·4
Yukon and Northwest Territories	7,614	6,893	7,527	+9·2
Canada	**3,785,840**	**4,123,151[1]**	**4,591,885**	**+11·4**
Kind of Business				
Food Group—				
Grocery, combination and meat markets	786,311	842,336	918,744	+9·1
Totals, Food Group	**950,332**	**1,017,541**	**1,110,314**	**+9·1**
Country General Stores	**289,583**	**321,308**	**354,684**	**+10·4**
General Merchandise Group—				
Department stores	423,618	464,880	516,141	+11·0
Variety stores	98,018	102,857	111,573	+8·5
Totals, General Merchandise Group	**602,204**	**654,954**	**722,804**	**+10·4**
Automotive Group	**311,330**	**351,942**	**424,301**	**+20·6**
Apparel Group—				
Men's and boys' clothing and furnishings stores	96,311	102,814	112,711	+9·6
Family clothing stores	93,498	98,760	108,987	+10·4
Women's apparel and accessories stores	126,583	136,253	147,766	+8·4
Shoe stores	56,117	59,631	66,430	+11·4
Totals, Apparel Group	**372,509**	**397,458**	**435,894**	**+9·7**
Building Materials Group	**209,967**	**247,723**	**281,418**	**+13·6**
Furniture, Household and Radio Group—				
Furniture stores	59,909	65,766	74,500	+13·3
Household appliance or radio dealers	34,407	33,965	40,487	+19·2
Totals, Furniture, etc. Group	**101,334**	**107,056**	**123,520**	**+15·4**
Restaurant Group	**189,056**	**202,463**	**210,465**	**+4·0**
Other Retail Stores (including second-hand)—				
Coal and wood yards (ice dealers)	133,177	122,765	126,819	+3·3
Drug stores	128,741	139,104	149,928	+7·8
Jewellery stores	49,067	56,228	64,850	+15·3
Government liquor stores[2]	153,104	165,677	218,134	+31·7
Totals, Other Retail Stores	**759,525**	**822,706[1]**	**928,485**	**+12·9**
Totals, All Establishments	**3,785,840**	**4,123,151[1]**	**4,591,885**	**+11·4**

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[1] Revised since the publication of the 1946 Year Book.

[2] The slight disparity between figures for government liquor stores shown here and those appearing in Table 19 arises from minor variations in the processes used in developing the two series.

19.—Chain Store Sales, by Provinces and by Kinds of Business, 1943-45

NOTE.—Group totals may include kinds of business for which separate figures are not shown.

Province and Kind of Business	1943	1944	1945	P. C. Change 1945 from 1944
	$000	$000	$000	
Province				
Maritime Provinces	60,810	67,091	73,198	+ 9·1
Quebec	146,585	156,298	175,826	+12·5
Ontario	310,228	336,042	384,405	+14·4
Manitoba	32,336	36,573	42,497	+16·2
Saskatchewan	38,026	43,698	49,703	+13·7
Alberta	46,989	51,347	57,675	+12·3
British Columbia	70,685	79,733	91,514	+14·8
Yukon and Northwest Territories	2,590	3,306	3,078	−6·9
Canada	**708,249**	**774,088**	**877,896**	**+13·4**
Kind of Business				
Food Group—				
Grocery, combination and meat markets	185,975	204,853	218,969	+ 6·9
Totals, Food Group	**196,737**	**215,419**	**230,043**	**+ 6·8**
Country General Stores	**9,289**	**9,477**	**11,264**	**+18·9**
General Merchandise Group—[1]				
Variety Stores	84,366	88,569	95,998	+ 8·4
Totals, General Merchandise Group[1]	**92,368**	**98,254**	**106,751**	**+ 8·6**
Automotive Group	**14,863**	**12,420**	**12,207**	**− 1·7**
Apparel Group—				
Men's and boys' clothing and furnishing stores	10,031	10,377	11,219	+ 8·1
Family clothing stores	16,513	17,561	20,018	+14·0
Women's apparel and accessories stores	15,134	16,608	19,456	+17·1
Shoe stores	19,648	20,664	23,745	+14·9
Totals, Apparel Group	**61,326**	**65,209**	**74,438**	**+14·2**
Building Materials Group	**37,123**	**44,477**	**46,958**	**+ 5·6**
Furniture, Household and Radio Group—				
Furniture stores	13,675	15,651	17,334	+10·8
Household appliance and radio dealers	9,774	9,482	11,534	+21·6
Totals, Furniture, etc. Group	**23,449**	**25,133**	**28,868**	**+14·9**
Restaurant Group	**19,494**	**20,337**	**20,053**	**− 1·4**
Other Retail Stores—				
Drug stores	21,512	23,005	24,127	+ 4·9
Jewellery stores	11,157	13,374	16,253	+21·5
Government liquor stores[2]	148,179	155,980	211,075	+35·3
Totals, Other Retail Stores	**253,600**	**283,362**	**347,314**	**+22·6**
Totals, All Chain Stores	**708,249**	**774,088**	**877,896**	**+13·4**

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[1] Department stores excluded. [2] The slight disparity between figures for government liquor stores shown here and those appearing in Table 18 arises from minor variations in the processes used in developing the two series.

Farm Implement Sales.—Domestic sales of new farm implements and equipment, mainly at wholesale prices to dealers or agents, amounted to $63,781,105 in 1945, 16·3 p.c. higher than the $54,824,135 recorded for 1944. Supplementary information relating to average mark-up indicates that the total sales figure quoted for 1945 should be increased by 20 p.c. to bring it to a retail basis. Canadian farmers, therefore, spent an estimated $76,600,000 for new machinery and equipment in 1945.

Separate figures on the sale of repair parts show a total business of $18,651,843 in 1945, a gain of 9·2 p.c. over the $17,084,138 reported for the preceding year. Applying an average mark-up of 31·4 p.c. to the 1945 figure, a total retail value for repair parts amounting to $24,508,500 is obtained.

20.—Regional Distribution of Farm Implement and Equipment Sales, 1944 and 1945

Note.—Values are mainly at wholesale prices.

Region	1944		1945		P. C. Increase 1945 over 1944
	Amount	P.C. of Total	Amount	P.C. of Total	
	$		$		
Maritime Provinces	1,933,382	3·5	2,619,974	4·1	35·5
Quebec	5,058,633	9·2	6,051,271	9·5	19·6
Ontario	12,977,046	23·7	14,731,018	23·1	13·5
Manitoba	7,224,039	13·2	7,868,572	12·3	8·9
Saskatchewan	15,220,383	27·8	18,628,103	29·2	22·4
Alberta	11,117,015	20·3	12,352,466	19·4	11·1
British Columbia	1,293,637	2·3	1,529,701	2·4	18·2
Totals	**54,824,135**	**100·0**	**63,781,105**	**100·0**	**16·3**

Motion-Picture Statistics.—There were 1,323 theatres operating in Canada in 1945 and these had 215,573,267 paid admissions. Box-office receipts, exclusive of amusement taxes, amounted to $55,430,711 while Dominion and provincial amusement taxes collected at motion-picture theatres amounted to $14,055,021. In addition, the 162 itinerant exhibitors of 16 mm. films had receipts of $353,045, collected $80,918 in amusement taxes, and reported admissions numbering 1,531,341. Moreover, there were 4 establishments operating in Canada in 1945 as legitimate theatres, which had 1,137,322 paid admissions with box-office receipts of $873,341 plus $239,179 amusement taxes.

21.—Motion-Picture Theatre Receipts, by Provinces, 1930, 1933, 1941, 1944 and 1945

(Exclusive of amusement taxes)

Province	1930	1933	1941	1944	1945
	$	$	$	$	$
Prince Edward Island	188,300	85,700	141,317	230,550	224,697
Nova Scotia	1,814,500	933,300	2,195,599	3,141,049	3,112,340
New Brunswick	1,093,400	556,500	1,102,265	1,595,130	1,702,869
Quebec	8,301,800	5,510,500	8,047,022	10,983,139	11,490,406
Ontario	15,900,900	10,960,200	18,757,372	22,542,943	23,740,894
Manitoba	2,712,800	1,820,700	2,475,949	2,930,435	3,066,871
Saskatchewan	1,977,300	1,069,300	1,673,313	2,347,726	2,553,779
Alberta	2,323,700	1,465,300	2,257,115	3,383,994	3,394,488
British Columbia[1]	4,166,800	2,552,700	4,145,945	6,018,359	6,144,367
Totals	**38,479,500**	**24,954,200**	**40,795,897**	**53,173,325**	**55,430,711**

[1] Includes Yukon.

New Motor-Vehicle Sales.—Preliminary results show that 114,479 new motor-vehicles having a retail value of $179,689,602 were sold in Canada during 1946. A disproportionate share of these were commercial vehicles, whose sales reached a new all-time peak of 41,427 units in 1946 and accounted for about 36 p.c. of the total of all new vehicles sold. The rate at which passenger cars reached the retail market was far below that prevailing in the late 1930's, although the year's sales totalled 73,052 units. Distribution rose sharply from about 1,000 in January to 8,200 in June, fell somewhat below the latter figure in the next four months, but reached new high levels in the last two months of the year. There was little evidence of the characteristic seasonal pattern; factory output was the determining factor in sales, the active demand necessitating the establishment of priority measures to guide distribution throughout the greater part of 1946.

When production of passenger cars for civilian use was discontinued in mid-1942, a pool of 10,000 units was provided to meet the needs of essential users. This supply was exhausted early in 1945 and the Government authorized the manufacture of 10,000 vehicles in the latter part of the year. Strikes in the automotive industry delayed production of these and few vehicles actually reached the retail market during the latter part of 1945.

Sales of new motor-vehicles by retail dealers for the period from 1930 to 1941 and for 1946 are summarized in Table 22. Compilation of statistics on such sales was suspended for most of the war period.

22.—Retail Sales of New Motor-Vehicles, 1930-46

Note.—The first year for which details are available is 1932. The total value for 1930 was secured in connection with the Census of Merchandising and Service Establishments.

Year	Passenger Cars		Trucks and Buses		Totals	
	No.	$	No.	$	No.	$
1930	[1]	[1]	[1]	[1]	[1]	122,165,000
1932	38,621	38,919,015	7,249	6,341,727	45,870	45,260,742
1933	39,568	39,692,630	5,764	5,757,600	45,332	45,450,230
1934	61,503	63,566,402	11,855	12,219,059	73,358	75,785,461
1935	83,242	83,429,114	18,219	18,313,335	101,461	101,742,449
1936	92,287	95,403,199	21,027	22,179,597	113,314	117,582,796
1937	114,275	116,886,334	30,166	32,284,193	144,441	149,170,527
1938	95,751	105,006,462	25,414	30,005,446	121,165	135,011,908
1939	90,054	97,131,128	24,693	28,836,393	114,747	125,967,521
1940	101,789	114,928,833	28,763	33,916,445	130,552	148,845,278
1941	83,650	108,907,312	34,432	43,008,207	118,082	151,915,519
1942-1945	[1]	[1]	[1]	[1]	[1]	[1]
1946[2]	73,052	109,932,039	41,427	69,757,563	114,479	179,689,602

[1] Not available. [2] Subject to revision.

Financing of Motor-Vehicle Sales.—Finance companies play an important role in the distribution of motor-vehicles. Some of these firms are national institutions operating branches in all parts of Canada, while others conduct sales finance operations locally in conjunction with other activities such as insurance and real estate. Their acceptance of the risks involved in financing sales of high-priced consumer commodities on instalment terms makes it possible for private individuals to acquire these goods with a moderate initial outlay and, at the same time, enables retail dealers to make use of capital which would otherwise be tied up in customer indebtedness.

Results of the 1941 Census revealed that motor-vehicle paper comprised 87 p.c. of all retail financing by finance companies. The remaining 13 p.c. was for financing sales of radios, household appliances and small amounts of furniture, jewellery and clothing. In 1941, there were 77 companies active in the motor-vehicle sales financing field, but this number was reduced by almost one-half during the period 1942-45. During war years financing operations were drastically curtailed and largely concentrated in the used-vehicle field.

Table **23** shows the amount of motor-vehicle financing done by finance companies for the years 1930-46.

23.—Financing of Motor-Vehicle Sales, 1930-46

Year	New Vehicles		Used Vehicles		All Vehicles	
	No.	Financing	No.	Financing	No.	Financing
		$		$		$
1930	47,961	28,610,731	80,353	34,367,443	128,314	62,978,174
1931	33,988	20,869,547	64,635	21,071,707	98,623	41,941,254
1932	21,293	12,741,179	47,998	13,123,694	69,291	25,864,873
1933	15,880	10,030,368	38,358	10,128,420	54,238	20,158,788
1934	23,264	16,364,735	52,906	13,726,728	76,170	30,091,463
1935	31,950	22,410,656	68,228	17,840,865	100,178	40,251,521
1936	42,863	29,887,861	94,651	24,971,951	137,514	54,859,812
1937	56,247	40,664,675	121,651	35,185,498	177,898	75,850,173
1938	45,267	33,701,624	117,436	35,984,229	162,703	69,685,853
1939	37,320	27,852,627	115,787	34,916,119	153,107	62,768,746
1940	42,982	33,473,397	133,596	41,762,396	176,578	75,235,793
1941	41,032	34,887,591	141,387	49,829,192	182,419	84,716,783
1942[1]	7,398	6,207,111	58,912	18,389,804	66,310	24,596,915
1943[1]	1,077	1,254,878	38,496	13,637,688	39,573	14,892,566
1944[1]	2,371	2,927,396	30,599	11,643,541	32,970	14,570,937
1945[1]	3,630	4,934,456	24,356	9,502,726	27,986	14,437,182
1946[2]	22,415	27,353,155	28,769	13,122,806	51,184	40,475,961

[1] Business concentrated mainly in the used-vehicle field. [2] Preliminary.

Section 7.—Co-operation in Canada*

An outline of the growth of co-operative activity in Canada and of the legislation passed in connection therewith, is given at pp. 543-545 of the 1942 Year Book. Developments leading up to the appointment in November, 1944, of a Royal Commission to inquire into the application of income tax and excess profits tax to co-operative companies and the findings of that Commission are given at pp. 618-624 of the 1946 edition.

Subsection 1.—Trends in the Field of Co-operation in 1945

For the year ended July 31, 1945, reports were received from 1,824 active co-operative business organizations engaged in marketing produce or buying supplies for their members, not including fishermen's associations or service co-operatives. Of these associations, 965 marketed farm products and 1,383 purchased supplies for their members or operated co-operative stores. The larger number of associations purchasing supplies is explained by the fact that associations organized primarily to market produce may purchase supplies as well, and also by the fact that an association may buy several of the types of merchandise used in this analysis. Duplication because of these factors amounts to 524.

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* Prepared by A. E. Richards and Lucienne Lalonde, Marketing Service, Economics Division, Department of Agriculture.

Shareholders and members numbered 739,604 and the total number of patrons including members and non-members was estimated to be 738,345. The consolidated balance sheet shows that total assets after provision for depreciation and bad debts amounted to $172,565,590. This is a decrease of $30,000,000 in value of assets from the previous year and is largely accounted for by a reduction in stocks of grain. Bank borrowings which covered these inventories were reduced correspondingly with a total decrease in general liabilities of $43,200,000. The members' equity amounted to $83,774,151 consisting of paid-up share capital of $15,789,047 and reserves and surplus of $67,985,104. This was an increase in members' equity of $11,282,613 over 1944. From 1944 to 1945 total working capital increased from $31,826,711 to $40,163,231. The relation of net worth to total assets increased from 35·7 p.c. in 1944 to 48·2 p.c. in 1945 indicating a strengthening of the co-operative financial structure.

Sales of farm products amounted to $500,481,627, sales of supplies and merchandise $81,360,855 and other revenue $3,807,584, a total business of $585,650,066. The increase reported in total business over the previous year amounted to $57,794,526.

Marketing.—The value of farm products marketed increased from 1944 to 1945 by $41,000,000. The sales value of fruits and vegetables increased by $11,000,000, tobacco $9,000,000, dairy products $8,000,000, live stock $6,000,000, and grain and seed $5,000,000.

A useful measure of co-operative activity on a regional basis is obtained by dividing the total value of products marketed co-operatively for an area by the number of farms which it contains (as reported in the Census of 1941). Saskatchewan led all provinces with average marketings of $1,257 per farm, British Columbia was in second place with $1,083 per farm, Alberta $913, Manitoba $727, Ontario $364, Prince Edward Island $281, Quebec $272, Nova Scotia $154 and New Brunswick $112. The average for Canada as a whole was $683 per farm.

The marketing of grain continued at a high level throughout the crop year 1944-45. It is estimated that during the year ended July 31, 1945, deliveries of grain to the four large co-operatives in the Prairie Provinces whose business is included in this report were 46 p.c. of total deliveries in these provinces. This is the same proportion that was estimated to have been marketed co-operatively in 1943-44. Sales value of grain and seed by co-operatives which amounted to $269,000,000 was approximately one-half of the total co-operative business in Canada during the year 1944-45.

It is estimated that marketing co-operatives handled approximately 28 p.c. of the main farm products entering commercial channels of trade in 1944-45. Of the total dairy products marketed, co-operatives handled approximately 17 p.c., live stock 17 p.c., eggs and poultry 12 p.c., wool 47 p.c., fruits and vegetables 27 p.c., honey 21 p.c., maple products 36 p.c., tobacco 89 p.c. and grains and seeds 46 p.c.

In order to determine the status of co-operatives in relation to non-co-operative methods of moving farm products into commercial trading channels, a comparison was made between the changes in co-operative marketings and total cash income from one year to the next. In 1944-45, co-operative marketings of farm commodities increased 9 p.c. over 1943-44 while total farm cash income from the same products increased 15 p.c. This indicates a reduced proportion of the total marketed through co-operative organizations. In the live-stock products group co-operative marketings increased 7 p.c. while total cash income increased 15 p.c. Co-operatives in this group apparently did not keep pace with the general increase. On the other hand, fruit and vegetable co-operatives showed an increase in business of 52 p.c. in 1944-45 over the previous year while total farm cash income from these products increased 20 p.c. Co-operatives apparently increased their proportion of business in this field during the crop year 1944-45.

Merchandising.—The reported sales value of supplies and merchandise purchased by co-operatives for members and patrons amounted to $81,360,855 in 1944-45. This was an increase of $15,900,000 over the previous year. Largest increases occurred in the food-product group and in sales of feed, fertilizer and spray material. In large measure these increases were attributable to the increased use of feeds, fertilizer and petroleum fuel by farmers in attaining the production objectives set for Canadian agriculture.

Fishermen's Co-operatives.—In addition to the co-operative business summarized elsewhere, there were 65 fishermen's co-operatives operating in 1944-45 with an estimated membership of 7,633. The total volume of business reported amounted to $5,239,934 which is a substantial increase over that reported for the previous year.

Insurance.—Mutual fire insurance is one of the oldest forms of co-operation in Canada. For the year ended Dec. 31, 1944, 409 farmers' mutual fire insurance companies carried insurance risks amounting to more than $1,436,293,000 by farmer members for mutual benefit. Net admitted assets were $15,973,000 and net losses paid in 1944 amounted to $3,014,000.

Credit Unions.—Complete statistics for credit unions are given in the Currency and Banking Chapter at pp. 1040-1043.

Co-operative Stores.—In 1945 there were 917 co-operative stores in Canada with a membership of over 165,000. Total value of the retail sales made by these stores exceeded $55,000,000. Of the estimated total of retail trade in Canada, co-operatives accounted for 0·8 p.c. This was an increase of 0·2 p.c. over the figures reported by the 1941 Census, but it is likely that this increase was the result of more accurate and complete coverage rather than from an increase in co-operative retail trading.

Miscellaneous and Service-Type Co-operatives.—At the end of 1944 there were 2,375 co-operative telephone systems in operation across Canada with an investment in excess of $22,000,000 and 110,388 connected telephones. In addition to the co-operative business already mentioned, other co-operative services are provided including housing, lodging and boarding facilities, transportation, medical and hospital care and funeral services.

Perhaps two of the most important recent developments under this heading are the co-operative farms in Saskatchewan and co-operatives for the provision of rural electrification in Quebec. The co-operative farms in Saskatchewan are as yet in the development stage and it is interesting to note that many of the co-operators are young veterans of the War of 1939-45.

The Rural Electrification Board of Quebec assists rural groups to organize co-operatively to provide electricity to the farmstead. For this purpose the Board has been allotted a fund of $12,000,000 by the Quebec Provincial Legislature.

Recent Developments.—The Canadian co-operative movement has in recent years expanded and strengthened itself by means of federations and international affiliations. One of these was the organization of Canadian Co-operative Implements Limited, which was designed to manufacture and distribute farm machinery in the three Prairie Provinces. A small factory was acquired at Winnipeg where small implements are now being manufactured. The Company has also concluded a contract with a large Eastern machinery firm to supply them with tractors and heavier farm equipment.

The various co-operative wholesales in Canada have joined into Interprovincial Co-operatives Limited to facilitate interprovincial co-operative trading in the products of the various provinces. Some of these co-operative wholesales are also members of National Co-operatives Incorporated of the United States. This is regarded as one of the first moves towards increasing international co-operative trading.

Taxation Amendments.—Amendments to the Income War Tax Act relative to co-operatives were initiated and passed by the Dominion Parliament in August, 1946. For the most part these amendments were based on the report of the Royal Commission on Co-operatives which was tabled in the House of Commons in December, 1945.

The former exemption clause 4 (p) was repealed as at the end of the 1946 crop or financial year and full exemption is granted for three years only, to co-operatives commencing business after Jan. 1, 1947. Patronage dividends are deductible by co-operatives as an expense before calculation of taxable income. The latter is made up of: (1) Any surplus arising from member and non-member business that is not paid out; (2) Surplus from non-member business that is paid out to members; (3) Dividends or interest paid on capital stock; or (4) An amount equal to 3 p.c. of the capital employed, if actually earned, which may be reduced by payment of interest on enforceable obligations. The tax will be paid on the total of (1), (2) and (3) above, or the total of (4), whichever is the greater.

Subsection 2.—Statistics of Co-operation

Tables 24 to 27 include statistics of active co-operative business organizations engaged in marketing produce or buying supplies for their members, but do not include statistics of fishermen's co-operatives or service co-operatives.

24.—Summary Statistics of Co-operative Business Organizations, Years Ended July 31, 1936-45

Year	Associations	Places of Business	Shareholders or Members	Patrons	Sales of Farm Products	Sales of Supplies	Total Business[1]
	No.	No.	No.	No.	$	$	$
1936	781	3,186	366,885	406,321	144,962,609	12,788,192	158,165,565
1937	1,024	3,987	396,918	451,231	157,031,405	16,363,966	173,927,117
1938	1,217	4,125	435,529	462,937	134,493,746	20,091,893	155,080,435
1939	1,332	3,791	445,742	486,589	180,747,471	20,400,008	201,659,984
1940	1,151	3,657	450,453	462,296	214,293,359	21,129,822	236,322,466
1941	1,395	4,005	451,685	507,223	215,030,410	25,895,374	242,158,305
1942	1,722	4,291	561,314	620,034	214,762,980	42,327,447	257,090,427
1943	1,650	4,406	585,826	608,680	295,499,274	55,689,141	352,785,598
1944	1,792	4,534	690,967	719,080	459,798,798	65,508,771	527,855,540
1945	1,824	5,341	739,804	738,345	500,481,627	81,360,855	585,650,067

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[1] Includes other revenue.

24.—Summary Statistics of Co-operative Business Organizations, Years Ended July 31, 1936-45—concluded

Year	Total Assets	Value of Plant	General Liabilities	Paid-up Share Capital	Reserves and Surplus	Working Capital[1]	Net Worth as a Percentage of Total Assets
	$	$	$	$	$	$	p.c.
1936	85,751,901	35,289,468	34,665,210	8,954,135	42,132,556	15,797,223	59·6
1937	87,938,453	36,338,952	36,685,625	9,265,747	41,987,081	14,913,876	58·3
1938	83,140,697	36,569,984	33,423,607	9,265,391	40,451,699	13,147,106	59·8
1939	86,240,783	37,751,641	32,973,321	9,685,537	43,581,925	15,515,821	61·8
1940	102,685,109	38,265,055	48,424,694	10,155,221	44,105,194	15,995,360	52·8
1941	145,658,904	38,567,084	92,222,947	10,503,077	42,932,880	14,868,873	36·7
1942	128,004,893	37,597,916	69,964,822	12,220,249	45,819,822	20,442,155	45·3
1943	186,634,839	36,866,861	124,264,085	13,091,948	49,278,806	25,503,893	33·4
1944	203,047,911	40,664,827	130,556,373	15,608,150	56,883,388	31,826,711	35·7
1945	171,128,184	43,048,326	87,354,033	15,789,047	67,985,104	40,725,825	48·2

[1] Working capital, as used in this table, is the excess of assets less value of plant over general liabilities.

25.—Products Marketed, Merchandise and Supplies Handled by Co-operative Business Organizations, Crop Year Ended July 31, 1945

Item	Associations[1]	Value of Sales
	No.	$
Marketing—		
Dairy products	552	60,911,834
Fruits and vegetables	173	32,133,239
Grain and seed	90	268,922,757
Live stock	264	88,091,373
Eggs and poultry	234	17,788,944
Honey	4	1,106,278
Maple products	3	1,037,295
Tobacco	6	27,522,489
Wool	10	1,723,000
Fur	2	636,769
Lumber and wood	5	174,194
Miscellaneous	30	433,455
Totals, Marketing	**965**	**500,481,627**
Merchandising—		
Food products	387	19,129,952
Clothing and home furnishings	257	2,910,378
Petroleum products and auto accessories	542	12,248,368
Feed, fertilizer or spray material	859	32,104,073
Machinery and equipment	271	921,725
Coal, wood and building material	425	4,674,480
Miscellaneous	692	9,371,879
Totals, Merchandising	**1,383**	**81,360,855**
Grand Totals	**1,824**	**581,842,482**

[1] Duplication exists in this column since some associations market produce as well as handle supplies. Some market more than one product and some handle many of the supplies listed.

26.—Co-operative Business Organizations, by Provinces, Crop Year Ended July 31, 1945

Province	Associations	Shareholders or Members	Sales of Products	Sales of Merchandise	Total Business[1]
	No.	No.	$	$	$
Prince Edward Island	25	12,327	3,437,530	725,443	4,221,860
Nova Scotia	83	16,242	5,094,063	6,407,610	11,577,710
New Brunswick	41	8,043	3,565,474	2,780,242	6,507,790
Quebec	589	61,713	42,034,827	20,237,714	62,275,269
Ontario	256	57,715	64,929,622	13,464,131	79,841,827
Manitoba	95	116,043	42,180,099	5,586,186	47,927,942
Saskatchewan	496	237,842	174,346,888	16,449,785	191,164,395
Alberta	146	149,196	91,067,024	7,764,575	99,080,370
British Columbia	87	28,675	28,573,519	5,788,269	35,626,053
Interprovincial	6	52,008	45,252,581	2,156,900	47,426,851
Totals	**1,824**	**739,804**	**500,481,627**	**81,360,855**	**585,650,067**

[1] Includes other revenue.

27.—Financial Structure of Co-operative Business Organizations, by Provinces, Crop Year Ended July 31, 1945

Province	Total Assets	Value of Plant	General Liabilities	Paid-up Share Capital	Reserves and Surplus
	$	$	$	$	$
Prince Edward Island	379,550	93,843	121,286	79,798	178,466
Nova Scotia	2,786,634	1,068,798	1,006,544	1,076,516	703,574
New Brunswick	968,745	271,666	444,162	254,736	269,847
Quebec	20,722,152	9,698,977	8,765,866	4,130,737	7,825,549
Ontario	8,396,221	3,382,768	3,660,469	1,668,027	3,067,725
Manitoba	13,446,220	2,819,564	8,731,827	723,446	3,990,947
Saskatchewan	64,094,092	11,445,168	26,184,684	1,337,054	36,572,354
Alberta	28,667,816	5,111,927	18,045,676	855,313	9,766,827
British Columbia	12,965,436	3,760,484	8,131,248	2,435,038	2,399,150
Interprovincial	18,701,318	5,395,131	12,262,271	3,228,382	3,210,665
Totals	**171,128,184**	**43,048,326**	**87,354,033**	**15,789,047**	**67,985,104**

PART III.—COMMERCIAL FAILURES

According to Sect. 91 of the British North America Act, "the exclusive legislative authority of the Parliament of Canada" extends to bankruptcy and insolvency legislation, and an Insolvency Act (32-33 Vict., c. 16) was passed by the Dominion Parliament in 1869, and applied to the four original provinces. This Act was renewed by c. 46 of the Statutes of 1874. In 1875 a new Insolvency Act (38 Vict., c. 16) applicable to the whole Dominion was passed, but was repealed in 1880. After this there was no Dominion legislation on the subject of bankruptcy until 1919. During the interval of nearly 40 years, commercial failures were handled under provincial legislation, and the statistics relating to such failures during this period were compiled and published by two commercial agencies, R. G. Dun and Co., and the Bradstreet Co. Statistics of commercial failures dealt with under the Dominion Bankruptcy Act of 1919 have been compiled and published by the Dominion Bureau of Statistics since 1920. (See pp. 844-845.)

The three Sections of this Part, although closely related so far as subject matter is concerned, cover different aspects of the field and the statistics presented in each Section are not comparable.

Statistics of industrial and commercial failures in Canada, given in Section 1, are compiled by Dun and Bradstreet, Inc. This concern is a mercantile agency interested primarily in credit information, and it is not to be expected that their data would be compiled on the same basis as figures of the Dominion Bureau of Statistics or the Superintendent of Bankruptcy. These statistics are established on a broader basis than those of Section 2, inasmuch as they include bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiffs' sales, landlords' seizures, etc., when loss to creditors results. On the other hand, the statistics do not include assignments of farmers (under the Farmers' Creditors Arrangement Act) or of wage-earners, so that, as a general rule, the totals run lower than those in Section 2. As pointed out, between 1875 and 1919 the agencies, now Dun and Bradstreet, Incorporated, were the only source of figures of commercial failures, and their statistics have an added value because they present an unbroken historical series, though not on a comparable basis since 1934 (see text preceding Table 1). Dun and Bradstreet, Inc., have ceased to publish statistics of assets since 1940.

Section 2, on the other hand, is limited to bankruptcies and insolvencies made under Dominion legislation, such as the Bankruptcy Act (including the Farmers' Creditors Arrangement Act), the Winding Up Act and the Companies' Creditors Arrangement Act, but not failures, sales, or seizures carried out apart from such Dominion legislation. In the field covered, however, Section 2 is broader than Section 1, inasmuch as the Dominion Bureau of Statistics figures include failures of individuals such as wage-earners and farmers.

A word should be added as regards the value to be placed upon figures of assets and liabilities. Such values are estimates made by the debtor and, unfortunately, are not made uniformly. The human equation enters into them to a considerable degree and they must be accepted with this qualification.

Section 3 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy, under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can, therefore, be assumed that this applies in even greater degree to the extended fields covered in Sections 1 and 2.

Section 1.—Industrial and Commercial Failures from Private Sources

A historical table giving failures for Canada and Newfoundland, by classes, for the years 1915 to 1935 is given at p. 969 of the 1936 Year Book. Early in 1936, Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises previously included in manufacturing and a new class for commercial service. Real estate companies, holding, and other financial companies and agents of various kinds, were dropped. These changes have had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities are reduced more in proportion to the number of failures since the companies eliminated usually ran high in indebtedness. The figures in Table 1, which are available back to 1934, are therefore not comparable with the earlier series and are for Canada only.

1.—Industrial and Commercial Failures in Canada, by Classes, 1938-45, and by Provinces, 1946

(From Dun and Bradstreet, Incorporated)

NOTE.—Figures for 1934-37 are given at p. 628 of the 1946 Year Book.

Year and Province	Manufacturing		Wholesale Trade		Retail Trade		Construction		Commercial Service		Totals	
	No.	Liabilities	No.	Liabilities	No.	Liabilities	No.	Liabilities	No.	Liabilities	No.	Liabilities
		$'000		$'000		$'000		$'000		$'000		$'000
Totals, 1938	**225**	**4,760**	**55**	**1,229**	**699**	**4,464**	**39**	**267**	**31**	**316**	**1,049**	**11,036**
Totals, 1939	**234**	**3,829**	**77**	**1,293**	**874**	**4,946**	**53**	**793**	**61**	**774**	**1,299**	**11,635**
Totals, 1940	**197**	**3,482**	**72**	**1,128**	**774**	**3,949**	**56**	**569**	**59**	**450**	**1,158**	**9,578**
Totals, 1941	**130**	**2,419**	**42**	**539**	**614**	**3,118**	**55**	**519**	**41**	**364**	**882**	**6,959**
Totals, 1942	**87**	**3,630**	**33**	**516**	**393**	**2,499**	**61**	**526**	**35**	**173**	**609**	**7,344**
Totals, 1943	**36**	**2,357**	**7**	**137**	**96**	**500**	**32**	**519**	**15**	**121**	**186**	**3,634**
Totals, 1944	**33**	**1,042**	**12**	**242**	**33**	**514**	**15**	**265**	**3**	**56**	**96**	**2,119**
Totals, 1945	**37**	**1,511**	**7**	**246**	**26**	**250**	**20**	**240**	**5**	**58**	**95**	**2,305**
1946												
P.E. Island	Nil	–	Nil	–	Nil	–	Nil	–	Nil	–	Nil	–
Nova Scotia	"	–	1	117	1	3	"	–	1	5	3	125
New Brunswick	"	–	1	13	3	33	"	–	Nil	–	4	46
Quebec	32	844	11	140	33	393	16	150	4	36	96	1,563
Ontario	5	983	5	131	3	19	1	8	2	137	16	1,278
Manitoba	1	3	Nil	–	Nil	–	1	44	Nil	–	2	47
Saskatchewan	Nil	–	"	–	1	3	Nil	–	"	–	1	3
Alberta	1	782	"	–	Nil	–	2	24	"	–	3	806
British Columbia	2	72	1	20	"	–	1	5	1	38	5	135
Totals, 1946	**41**	**2,684**	**19**	**421**	**41**	**451**	**21**	**231**	**8**	**216**	**130**	**4,003**

In 1946, Quebec and Ontario accounted for 74 p.c. and 12 p.c., respectively, of the total failures in the Dominion. As regards liabilities, Quebec accounted for 39 p.c. of the total as compared with 32 p.c. registered for Ontario.

2.—Industrial and Commercial Failures, by Provinces, 1944-46

(From Dun and Bradstreet, Incorporated)

NOTE.—Comparable figures for 1934-43 are given in the corresponding table of previous Year Books.

Province	Failures			Liabilities		
	1944	1945	1946	1944	1945	1946
	No.	No.	No.	$'000	$'000	$'000
Prince Edward Island	Nil	1	Nil	–	13	–
Nova Scotia	2	2	3	55	6	125
New Brunswick	1	2	4	19	7	46
Quebec	61	64	96	1,369	1,367	1,563
Ontario	18	14	16	280	425	1,278
Manitoba	2	4	2	210	65	47
Saskatchewan	3	3	1	7	5	3
Alberta	3	2	3	57	350	806
British Columbia	6	3	5	122	67	135
Totals	**96**	**95**	**130**	**2,119**	**2,305**	**4,003**

According to Dun and Bradstreet, Incorporated, the number of commercial failures during the war years 1939-45 showed a steady decrease year by year, and, whereas before the War the great majority of failures were in retail trading establishments, the proportion in that group also showed a steady decrease during those years. In 1946, however, the number of failures increased by 37 p.c. over the previous year. There were more failures in each of the industrial groups though 77 p.c. of the increase was accounted for by wholesale and retail establishments.

3.—Industrial and Commercial Failures, by Divisions of Industry, 1944-46,

(From Dun and Bradstreet, Incorporated)

Note.—Comparable figures for 1934-42 are given in the corresponding table of previous Year Books.

Industry and Division	Failures			Liabilities		
	1944	1945	1946	1944	1945	1946
	No.	No.	No.	$'000	$'000	$'000
Manufacturing—						
Foods	3	1	2	51	8	20
Textiles	1	3	4	2	24	102
Forest products	5	12	7	101	341	108
Paper, printing and publishing	3	5	2	47	343	126
Chemicals and drugs	1	Nil	2	12	–	99
Fuels	3	“	Nil	193	–	–
Leather and leather products	Nil	“	“	–	–	–
Stone, clay, glass and products	3	“	“	366	–	–
Iron and steel	2	“	2	9	–	909
Machinery	5	4	4	108	192	84
Transportation equipment	1	3	2	62	90	51
All other	6	9	16	91	513	1,185
Totals, Manufacturing	**33**	**37**	**41**	**1,042**	**1,511**	**2,684**
Wholesale Trade—						
Farm products, foods, groceries	1	5	5	40	115	156
Clothing and furnishings	Nil	Nil	Nil	–	–	–
Dry goods and textiles	1	“	“	8	–	–
Lumber, building materials, hardware	4	“	5	92	–	59
Chemicals and drugs	1	“	Nil	7	–	–
Fuels	1	“	“	25	–	–
Automotive products	Nil	“	“	–	–	–
Supply houses	“	“	“	–	–	–
All other	4	2	9	70	131	206
Totals, Wholesale Trade	**12**	**7**	**19**	**242**	**246**	**421**
Retail Trade—						
Foods	12	7	5	53	105	37
Farm supplies, general stores	2	8	8	4	74	70
General merchandise	Nil	Nil	1	–	–	3
Apparel	2	1	5	10	10	115
Furniture, household furniture	1	Nil	1	246	–	26
Lumber, building materials, hardware	2	1	3	32	25	21
Automotive products	3	1	4	57	11	72
Restaurants	2	4	6	13	6	44
Drugs	2	Nil	1	9	–	10
All other	7	4	7	90	19	53
Totals, Retail Trade	**33**	**26**	**41**	**514**	**250**	**451**
Construction—						
General contractors	9	13	13	246	182	186
Carpenters and builders	Nil	1	1	–	18	1
Building sub-contractors	6	6	7	19	40	44
Other contractors	Nil	Nil	Nil	–	–	–
Totals, Construction	**15**	**20**	**21**	**265**	**240**	**231**
Commercial Service—						
Cleaners and dyers, tailors	1	Nil	1	1	–	3
Haulage, buses, taxis, etc.	1	3	4	5	51	203
Hotels	1	Nil	Nil	50	–	–
Laundries	Nil	“	1	–	–	5
Undertakers	“	“	Nil	–	–	–
All other	“	2	2	–	7	5
Totals, Commercial Service	**3**	**5**	**8**	**56**	**58**	**216**
Grand Totals	**96**	**95**	**130**	**2,119**	**2,305**	**4,003**

Section 2.—Commercial Failures as Compiled by the Dominion Bureau of Statistics

Under the Bankruptcy and Winding Up Acts (R.S.C. 1927, cc. 11 and 213), certain documents relating to estates administered under these Acts have, since July, 1920, been forwarded to the Dominion Statistician for statistical analysis. However, changes in the Acts effective in 1923 affected the comparability with 1921 and 1922, the two earliest full years for which statistics are compiled. The series, therefore, begin with 1923, except for the analysis by branches of business, in which case 1924 is the first year compiled. The statistics of this Section cover all bankruptcies and insolvencies that fall under Dominion legislation, including assignments of individuals and farmers.

4.—Commercial Failures, by Provinces, 1937-46

Note.—Figures for 1923-36 will be found at p. 570 of the 1942 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1937	Nil	23	23	623	335	23	34	25	40	1,126
1938	4	35	31	588	391	67	56	20	27	1,219
1939	3	38	45	669	403	74	67	37	56	1,392
1940	3	26	12	622	362	36	46	31	35	1,173
1941	4	17	7	587	279	23	45	25	21	1,008
1942	2	9	8	456	192	16	29	11	14	737
1943	Nil	3	Nil	217	72	2	8	2	10	314
1944	Nil	2	Nil	209	29	1	5	3	11	260
1945	1	3	1	225	27	3	Nil	4	8	272
1946	Nil	3	2	236	20	1	“	4	12	278

5.—Commercial Failures, by Branches of Business, 1937-46

Note.—Figures for 1923-36 will be found at p. 570 of the 1942 Year Book.

Year	Trade	Manufactures	Agriculture	Logging and Fishing	Mining	Construction	Transportation and Public Utilities	Finance	Service	Not Classified	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1937	584	182	104	5	21	46	7	15	123	39	1,126
1938	667	200	101	1	11	50	9	4	109	67	1,219
1939	664	210	108	6	18	80	22	12	197	75	1,392
1940	591	167	67	4	15	53	13	11	201	51	1,173
1941	482	132	34	2	14	64	13	8	188	71	1,008
1942	342	80	14	Nil	10	58	17	2	181	33	737
1943	105	23	13	1	7	41	11	9	78	26	314
1944	71	42	4	2	3	27	11	7	62	31	260
1945	58	54	2	Nil	3	39	12	6	70	28	272
1946	77	57	2	4	3	32	14	7	64	18	278

6.—Estimated Assets and Liabilities of Commercial Failures, 1937-46

Note.—Figures for 1923-36 will be found at p. 571 of the 1942 Year Book.

Year	Estimated Total Assets	Estimated Total Liabilities
	$	$
1937	10,704,079	14,303,362
1938	8,782,191	14,017,061
1939	11,186,360	15,089,461
1940	7,676,295	10,663,326
1941	7,325,738	9,133,657
1942	4,500,195	6,019,308
1943	2,675,846	5,339,523
1944	1,628,959	3,460,181
1945	1,864,359	3,995,109
1946	4,039,339	5,966,153

7.—Commercial Failures, by Provinces and Branches of Business, 1946, with Totals for 1945

Branch of Business	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total for 1946	Total for 1945
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Trade—										
General stores	Nil	Nil	10	Nil	Nil	Nil	Nil	Nil	10	9
Grocery	1	“	3	“	“	“	“	“	4	7
Confectionery	Nil	“	2	“	“	“	“	“	2	2
Drink and tobacco	“	“	Nil	“	“	“	“	“	–	Nil
Fish and meat	“	“	“	“	“	“	“	“	–	7
Boots and shoes	“	“	“	“	“	“	“	“	“	Nil
Dry goods	“	“	3	“	“	“	“	“	3	“
Clothing	“	“	3	“	“	“	“	“	3	5
Furniture	“	“	2	“	“	“	“	“	2	1
Books and stationery	“	“	Nil	“	“	“	“	“	–	3
Automobile	“	“	2	1	“	“	“	“	3	Nil
Hardware	“	“	Nil	Nil	“	“	“	“	–	“
Electrical apparatus	“	“	1	“	“	“	“	“	1	1
Jewellery	“	“	6	“	“	“	“	“	6	2
Coal and wood	“	“	9	“	“	“	“	“	9	3
Drugs and chemicals	“	“	1	“	“	“	“	“	1	Nil
Miscellaneous	1	“	26	4	“	“	1	1	33	18
Totals, Trade	**2**	–	**68**	**5**	–	–	**1**	**1**	**77**	**58**
Manufacturing—										
Vegetable foods	Nil	Nil	3	1	Nil	Nil	1	Nil	5	5
Animal foods	“	“	1	Nil	“	“	Nil	“	1	2
Drink and tobacco	“	“	Nil	“	“	“	“	“	–	Nil
Fur and leather	“	“	6	“	“	“	“	“	6	3
Pulp and paper	“	“	1	“	“	“	“	“	1	1
Textiles	“	“	Nil	“	“	“	“	“	–	1
Clothing	“	“	2	“	“	“	“	“	2	5
Lumbering and manufactures	“	“	6	1	1	“	1	3	12	14
Iron and steel	“	“	9	2	Nil	“	Nil	Nil	11	8
Non-ferrous metals	“	“	4	1	“	“	“	“	5	4
Non-metallic minerals	“	“	2	Nil	“	“	“	“	2	3
Drugs and chemicals	“	“	1	“	“	“	1	“	2	Nil
Miscellaneous	“	“	10	“	“	“	Nil	“	10	8
Totals, Manufacturing	–	–	**45**	**5**	**1**	–	**3**	**3**	**57**	**54**
Service—										
Garages	Nil	Nil	2	Nil	Nil	Nil	Nil	Nil	2	6
Other customs and repairs	1	“	8	“	“	“	“	“	9	8
Personal service	Nil	“	23	1	“	“	“	“	24	25
Restaurants	“	1	11	1	“	“	“	“	13	10
Professional service	“	Nil	8	Nil	“	“	“	“	8	13
Recreational service	“	“	2	“	“	“	“	“	2	2
Business service	“	“	6	“	“	“	“	“	6	6
Totals, Service	**1**	**1**	**60**	**2**	–	–	–	–	**64**	**70**
Other—										
Agriculture	Nil	Nil	2	Nil	Nil	Nil	Nil	Nil	2	2
Mining	“	“	1	2	“	“	“	“	3	3
Logging, fishing and trapping	“	“	2	Nil	“	“	“	2	4	Nil
Construction	“	“	27	3	“	“	“	2	32	39
Transportation and public utilities	“	“	10	2	“	“	“	2	14	12
Finance	“	“	5	1	“	“	“	1	7	6
Totals, Other	–	–	**47**	**8**	–	–	–	**7**	**62**	**62**
Not classified	Nil	1	16	Nil	Nil	Nil	Nil	1	18	28
Grand Totals	**3**	**2**	**236**	**20**	**1**	–	**4**	**12**	**278**	**272**

Section 3.—Administration of Bankrupt Estates

The administration of bankrupt estates is supervised by the Superintendent of Bankruptcy (appointed in 1932) with the object of conserving so far as possible the assets of bankrupt estates for the benefit of the creditors. Figures from the first report are given at p. 1039 of the 1934-35 Year Book, and those for subsequent years are to be found in later editions.

8.—Assets, Liabilities, Assets Realized and Costs of Administration in Bankrupt Estates Closed, 1933-45, and by Provinces, 1946

(From the Annual Report of the Superintendent of Bankruptcy)

Year and Province or City	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Reali-zation	Cost of Adminis-tration	Percentage of Costs to Total	Paid to Creditors
	No.	$	$	$	$	p.c.	$
Totals, 1933	**850**	**9,207,503**	**8,629,392**	**1,880,015**	**423,833**	**22·6**	**1,449,392**
Totals, 1934	**1,620**	**14,887,298**	**20,342,883**	**3,800,996**	**880,803**	**23·2**	**2,908,020**
Totals, 1935	**1,198**	**14,039,847**	**19,402,471**	**2,797,009**	**763,617**	**27·3**	**2,020,868**
Totals, 1936	**1,069**	**10,314,455**	**14,018,966**	**2,265,125**	**603,182**	**26·6**	**1,661,943**
Totals, 1937	**1,149**	**18,397,022**	**20,431,515**	**2,805,743**	**770,563**	**27·5**	**2,035,180**
Totals, 1938	**1,098**	**15,995,276**	**21,740,131**	**2,526,562**	**717,485**	**28·4**	**1,809,077**
Totals, 1939	**1,119**	**13,174,172**	**15,760,643**	**2,667,708**	**815,396**	**30·6**	**1,852,312**
Totals, 1940	**1,084**	**11,315,392**	**14,932,651**	**2,495,254**	**756,646**	**30·3**	**1,738,608**
Totals, 1941	**981**	**11,597,029**	**14,315,281**	**3,408,625**	**896,554**	**26·3**	**2,512,071**
Totals, 1942	**879**	**10,994,748**	**12,023,215**	**2,393,661**	**772,995**	**32·3**	**1,620,666**[1]
Totals, 1943	**675**	**7,633,251**	**9,593,541**	**2,046,612**	**706,257**	**34·5**	**1,340,355**[1]
Totals, 1944	**468**	**3,495,148**	**6,154,052**	**1,196,725**	**425,121**	**35·5**	**771,604**[1]
Totals, 1945	**351**	**4,969,923**	**6,795,160**	**1,037,252**	**339,119**	**32·7**	**698,133**[1]
1946							
Prince Edward Island..	Nil	–	–	–	–	–	–
Nova Scotia	3	103,260	53,582	32,407	7,792	24·04	24,614
New Brunswick	Nil	–	–	–	–	–	–
Quebec[2]	86	405,431	907,091	217,834	67,097	30·80	150,737
Montreal	149	882,335	1,645,931	480,195	113,486	23·63	366,709
Ontario[2]	18	595,427	646,863	164,899	39,975	24·24	124,923
Toronto	16	372,385	546,647	91,995	25,806	28·05	66,190
Manitoba	Nil	–	–	–	–	–	–
Saskatchewan	5	19,209	50,253	7,473	1,269	16·98	6,204
Alberta	10	226,484	242,860	35,893	8,590	23·93	27,304
British Columbia	12	426,068	623,520	171,954	17,984	10·46	153,970
Totals, 1946	**299**	**3,030,599**	**4,716,747**	**1,202,650**	**281,999**	**23·45**	**920,651**[1]

[1] In addition to the payments by the trustee, secured creditors valued their security or realized on it themselves without the intervention of the trustee to an amount of approximately $2,596,068 in 1942, $1,799,722 in 1943, $1,201,289 in 1944, $1,811,803 in 1945 and $684,039 in 1946. [2] Exclusive of city shown separately.

The Farmers' Creditors Arrangement Act came into effect Sept. 1, 1934. This Act was amended in 1935 and 1938 and was repealed and replaced by the Farmers' Creditors Arrangement Act, 1943. Assignments are made only in those cases in which the farmers are hopelessly insolvent and, in many cases, the assignments follow the rejection of proposals submitted to the creditors. Receiving orders are made only in cases in which the farmers have failed to fulfil the terms of their proposals as accepted by the creditors and approved by the court. Table **9** shows only statistics of estates closed by assignments or receiving orders and does not indicate the proposals that have been approved and are being carried out under the Farmers' Creditors Arrangement Act.

9.—Assets, Liabilities, Assets Realized and Costs of Administration in Estates Closed by Assignments or Receiving Orders Under the Farmers' Creditors Arrangement Act, 1935-45, and by Provinces, 1946.

(From the Annual Report of the Superintendent of Bankruptcy)

Year and Province	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization	Cost of Administration	Percentage of Cost to Total	Paid to Creditors
	No.	$	$	$	$	p.c.	$
Totals, 1935	**94**	**352,030**	**729,203**	**20,731**	**2,296**	**11·1**	**18,435**
Totals, 1936	**259**	**1,227,198**	**2,426,374**	**55,451**	**12,904**	**23·3**	**42,547**
Totals, 1937	**167**	**641,096**	**1,131,838**	**78,562**	**13,885**	**17·7**	**64,677**
Totals, 1938	**139**	**575,514**	**974,002**	**76,832**	**13,400**	**17·4**	**63,432**
Totals, 1939	**83**	**368,548**	**688,524**	**39,808**	**9,466**	**23·8**	**30,342**
Totals, 1940	**59**	**267,032**	**459,516**	**37,338**	**7,417**	**19·8**	**29,921**
Totals, 1941	**42**	**177,974**	**288,031**	**31,319**	**9,652**	**30·8**	**21,667**
Totals, 1942	**19**	**70,380**	**114,333**	**9,702**	**1,785**	**18·4**	**7,890**[1]
Totals, 1943	**10**[2]	**31,080**	**50,059**	**5,053**	**1,379**	**27·3**	**3,656**[1]
Totals, 1944	**18**	**55,081**	**86,597**	**13,111**	**5,150**	**39·3**	**7,933**[1]
Totals, 1945	**3**	**3,210**	**13,697**	**1,870**	**887**	**47·4**	**983**[1]
1946							
Prince Edward Island	Nil	-	-	-	-	-	-
Nova Scotia	"	-	-	-	-	-	-
New Brunswick	"	-	-	-	-	-	-
Quebec	3	14,593	17,185	7,000	953	13·6	6,047
Ontario	Nil	-	-	-	-	-	-
Manitoba	"	-	-	-	-	-	-
Saskatchewan	2	17,770	38,989	1,133	213	18·8	920
Alberta	2	2,000	10,967	281	56	19·9	225
British Columbia	Nil	-	-	-	-	-	-
Totals, 1946	**7**	**34,363**	**67,141**	**8,414**	**1,222**	**14·5**	**7,192**[1]

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[1] In addition, land and chattels under mortgage or lien, of an estimated value of $41,258 in 1942, $18,853 in 1943, $26,044 in 1944, $1,700 in 1945 and $13,483 in 1946, were transferred to secured creditors. [2] Does not include three estates in Saskatchewan and one in Alberta closed during the year but which would, if extended, alter the figures and affect the totals in such a way as to result in an unbalanced picture contrary to the actual state of affairs. These four cases had been held open or re-opened with a view to realizing on judgments obtained pursuant to conditional orders of discharge granted to the farmers but in none was anything recovered from this source and the only additional expense involved was an item of $1 paid by the Federal Government.

CHAPTER XXIII.—FOREIGN TRADE

CONSPECTUS

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General Review

Canada has become one of the great trading nations of the world during the past two decades. With less than one per cent of the world's population, this country, in 1938, ranked fifth in total trade, fourth as an exporter and eighth as an importer. During the War of 1939-45, she rose to third position among trading nations, due to the heavy demand created for foodstuffs and war materials. One-third of all goods and services produced in this Dominion during 1944 and 1945 were exported, which compares with less than one-fifth of a much smaller production in 1938. Canada retained her wartime position as a world trader in 1946, despite the elimination of munitions and other war supplies from the list of her exports.

This expansion of Canadian foreign trade is attributed to a combination of unique economic and geographical conditions. Canada is richly endowed with natural resources, the development of which involved heavy capital investment. This is profitable only when such resources can be exploited on a large scale, and the initial costs offset by mass production. Primary production and industry are interdependent. Canadian wheat can compete in markets of the world largely because of the capital invested in farm machinery and transportation facilities. These could not be utilized economically without intensive development of the wheat industry. Similar heavy capital investments in plant and equipment and in the development of hydro-electric power have made possible the expansion of Canada's pulp and paper and base-metal industries. A population of some 12,307,000 is unable to absorb the full production of this country's primary and secondary industries. Only by exporting can efficient low-cost production of basic commodities be maintained.

Canada lacks many products required by modern industry and many consumer goods that have become an important part of the present high standard of living in this Dominion. Import statistics reveal a large number of items that are not now being produced or are made available in insufficient quantities to meet domestic demands. Coal and certain machinery, cotton and wool, petroleum products, sugar and fresh fruits, tea and coffee are imported to meet the needs of Canadian industries and householders. Payment for these commodities is effected through the sale of Canadian products in other lands.

Maintenance of a large volume of trade is of two-fold importance to Canada. Only by exporting on a large scale can she obtain the advantages of large-scale production, and her needs for the many items not produced in this country can be satisfied only if sufficient Canadian products are sold on the international market to furnish funds with which to purchase such imported commodities. Total domestic exports for 1946 amounted to $2,312,000,000 and imports for consumption to $1,927,000,000. In this first year after the War, Canadian trade was maintained at a high level, as the productive capacity, which had increased so greatly during the War, found foreign outlets for its produce.

The transition from war to peace was not accomplished without difficulty. Many of Canada's customers ended the War with their foreign exchange reserves diminished and their ability to carry on foreign trade on a pre-war scale impaired. At the same time, their requirements for food and capital goods had increased. Without assistance of some kind, it would have been impossible to maintain the flow of essential goods to these countries.

Canadian Government trade and financial policy has been designed to bridge the gap between foreign requirements and Canada's own great capacity to produce. The principal method used in providing foreign governments with purchasing power is the system of loans and credits to various nations, and the supply to many countries of donations of food, clothing and equipment through the medium of UNRRA. These arrangements have proved mutually advantageous. Many countries whose economies had been severely dislocated by the War were assisted in their program of rehabilitation, and Canadian supplies of food have meant much to a world threatened with starvation. From the Canadian point of view, the loans have enabled Canadian industry to continue production at maximum tempo, and have averted the dangers of unemployment in export industries.

Such export credits and donations approximate $2,000,000,000 in the aggregate, including a contribution of $154,000,000 to UNRRA. The total Canadian post-war loans and credits to the United Kingdom and other countries are shown below with the amounts advanced or encumbered up to Jan. 31, 1947:—

Country	*Amount Authorized to Jan. 31, 1947*	*Amount Advanced or Encumbered to Jan. 31, 1947*
	$	$
United Kingdom	1,250,000,000	540,000,000
Belgium	100,000,000	51,000,000
China	60,000,000	22,374,165
Czechoslovakia	19,000,000	5,283,348
France	242,500,000	145,400,000
Netherlands	125,000,000	66,973,322
Netherlands Indies	15,000,000	5,400,000
Norway	30,000,000	16,406,000
Union of Soviet Socialist Republics	3,000,000	2,866,099
TOTALS	1,844,500,000	855,702,934

The advantages of this policy are not confined to the present. It is anticipated that the present wide distribution of Canadian goods will, in itself, create a demand for those goods in future years, when the countries now buying from us on credit terms will be in a position to buy with their own resources. This attempt to develop a strong continuing demand for Canadian goods in the future has been reinforced by the negotiation of trade agreements with various countries.

Since Confederation, the bulk of Canadian trade has been with the United States and the United Kingdom. Prior to the War of 1939-45, Canadian exports to the United Kingdom were normally twice the value of her imports from that country, whereas her purchases from the United States exceeded her sales to that country. The surplus on United Kingdom account financed the deficit on United States account. Now, however, the United Kingdom is obliged to borrow from Canada in order to cover the bulk of her deficit here. Canada, in turn, has financed the deficit on United States account from reserves of foreign exchange or with United States dollars acquired elsewhere. The problem is further complicated by the large increases in both exports and imports, as compared with pre-war figures. The deficit on United States account has nearly quadrupled; from an average of $11,000,000 monthly in the three years 1937-39, to $43,000,000 monthly in 1946. The export surplus to the United Kingdom for the same periods has almost doubled.

Details of the Canadian trade figures for 1946 and earlier years are summarized in tables, charts and written analyses at pp. 867-901.

The above review has dealt almost entirely with commodity trade. However, foreign trade in commodities is only a part, though a very important part, of the broader field made up of the international exchange of values comprising goods, services, securities, etc. This relationship is shown in its proper proportions in Part III pp. 901-915. As commodity exports and imports constitute the largest factor in Canada's international transactions, and the one in which the majority of Canadians are most vitally interested, this Chapter is devoted chiefly to the consideration of commodity trade.

PART I.—THE GOVERNMENT AND FOREIGN TRADE*

Section 1.—Foreign Trade Service and Associated Agencies Concerned with the Development of Foreign Trade

During the war years the Department of Trade and Commerce reorganized and adapted its administrative machinery to war conditions. Agencies were created to control the flow of civilian commodities to and from this country and generally adapt foreign trade functions to vital needs. At the same time, the Department was, during the latter years of war, considering plans for post-war trade expansion and the foundations were then laid for the organization of the Foreign Trade Service to assist Canadian and foreign exporters and importers in every phase of foreign trade. Built around an expanded Trade Commissioner Service, new divisions were added and old divisions reorganized to cope with every angle of foreign trade. A special section was organized to foster the country's new interest in imports.

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* Sections 1 and 2 of this Part, together with the General Review at pp. 848-850, have been prepared in the several Branches concerned and collated by B. C. Butler, Director, Trade Publicity Division, Department of Trade and Commerce, Ottawa.

Subsection 1.—Foreign Trade Service

The prosperity of Canada depends, to a large extent, on the establishment of closer commercial relations with other countries and on the development of her foreign trade. Due, in large measure, to the unprecedented demand for munitions of war and a wide range of other manufactured products, industry in the Dominion during the past few years has passed through a period of rapid expansion. Although foodstuffs and raw materials figure largely among Canada's exports, the value of semi-processed goods available for shipment to foreign markets has increased substantially. As the population of Canada is unable to absorb the present production, every effort is being made to furnish exporters with assistance in securing purchasers abroad for their products. New sources of supply, especially for raw materials and a wide range of commodities required by industry, are also sought.

Six divisions of the Foreign Trade Service and a number of associated agencies are engaged directly in the development of Canada's commercial relations with other countries, assuming responsibility for functions performed over a long term of years by the Commercial Intelligence Service. The Directors of the six divisions constitute an executive committee, of which the Deputy Minister of the Department of Trade and Commerce is chairman. The directors, managing directors and general managers of the associated agencies are also responsible to the Minister of Trade and Commerce. Divisions of the Service and their functions are described as follows:—

Trade Commissioner Service.—The Trade Commissioner Service might be defined as the sales department of the Foreign Trade Service. Consisting of a headquarters at Ottawa and 41 offices in 22 foreign and 13 British Empire countries, the organization seeks to place Canada in as many world markets as possible. The work of the Trade Commissioners in the field is co-ordinated at Ottawa by four global areas headed by area chiefs. The area officers are familiar with every aspect of foreign trade in their geographical or political areas and are responsible to the Director of the Division for the presentation of official information on all trade matters in their respective territories.

Trade Commissioners, representing Canada in the 41 offices abroad, bring together exporters and importers of Canada and other countries. They study potential markets for specific Canadian products, report on the exact kind of goods required, competitive conditions, trade regulations, tariffs, shipping and packaging regulations. Enquiries for Canadian goods are passed to Ottawa or directly to interested Canadian firms. For the Canadian importer, Trade Commissioners seek sources of raw materials and other goods wanted in Canada, and give assistance to the foreign exporter who wishes to market his products in Canada.

In countries where Canada maintains a diplomatic mission, as well as a trade office, Trade Commissioners form an integral part of the mission and assume the titles of Commercial Counsellor or Commercial Secretary. In some foreign countries they also act as Consuls or Vice-Consuls, according to their status as Foreign Service Officers. To refresh their knowledge of the Canadian industrial picture as a whole, tours of Canadian industrial centres are arranged from time to time for Trade Commissioners. Contacts with Canadian exporters and importers are made or re-established, and the Trade Commissioners are given an opportunity to pass on information regarding the trade conditions and potentialities of their territories directly to those most concerned.

Trade Commissioner Offices are located in the following countries: Argentina, Australia, (Sydney and Melbourne), Belgian Congo, Belgium, Brazil (Rio de Janeiro and São Paulo), British West Indies (Jamaica and Trinidad), Chile, China, Colombia, Cuba, Egypt, France, Greece, Guatemala, Hong Kong, India, Ireland, Italy, Malayan Union, Mexico, the Netherlands, Newfoundland, New Zealand, Norway, Peru, Portugal, South Africa (Johannesburg and Cape Town), Sweden, United Kingdom (London, Liverpool and Glasgow); the United States (Washington, New York, Chicago and Los Angeles); and Venezuela. Canadian representatives of the Department of Trade and Commerce are attached to the Canadian Military Mission in Germany and the Canadian Mission in Japan.

Commercial Relations and Foreign Tariffs Division.—The Commercial Relations and Foreign Tariffs Division collects and makes available to Government agencies and exporters, data on trade agreements and trade relationships with other countries, tariffs, import and exchange regulations, quotas and embargoes. More generally, questions related to trade agreements and commercial policies of other countries are of concern to this Division. This involves minute investigation into all aspects of commercial policy and research into tariff and financial developments, as well as the preparation of data required for preliminary study and preparation of new trade agreements, trade agreement renewals and revisions.

The Foreign Tariffs Section of this Division supplies information to Canadian exporters and other branches of the Government on tariffs, quotas, embargoes, documentation and other technical factors in the import regulations of foreign countries. New foreign trade laws and tariff regulations are perused constantly so that a record of up-to-date information is maintained and available upon request.

The Commercial Relations Section collects and records data required for prospective trade negotiations. Problems related to tariff hindrances and other trade obstructions are studied. The value of mutual concessions with trading countries is examined. The Section deals with representations made by Canadian exporters and initiates or advises regarding appropriate action. In carrying out these functions, it is often necessary for the Research Section to seek the assistance of specialists from other Government Departments in the various phases of export industry such as agriculture, forestry, mining, etc.

The Economic Section, still in the development stage, is designed to carry out studies of special subjects (e.g., non-tariff restrictions to world trade, export subsidies, quantitative controls, and import permits).

Export Division.—The Export Division of the Foreign Trade Service is the link between Canadian exporters and the Trade Commissioner Service in the promotion of export trade. The Division is comprised of 23 Commodity officers, organized into five major sections, as follows: (a) Foods—live stock and products, fish and fish products, plants and products, and food allocations; (b) Machinery, Metals and Chemicals—iron and steel products, non-ferrous metals and non-metallic minerals, chemicals and products, machinery and industrial equipment, electrical machinery and equipment, and automotive equipment and vehicles; (c) Textiles, Leather, Rubber—textiles and apparel, leather, rubber, and products; (d) Wood and Paper—wood and products, and paper and products; (e) General Products—durable consumer goods, and miscellaneous products. The Commodity officers serve in the dual capacity of keeping the Trade Commissioner Service abroad fully informed of supply conditions in Canada, and maintaining close liaison with

Canadian exporters, actual and prospective. In conjunction with the Trade Commissioner Service, they advise exporters as to trade enquiries, potential markets for their products, the selection of agents, and trade regulations and practices. They furnish the initial contact through the Foreign Trade Service at Ottawa with Canadian markets abroad.

The Export Division maintains a confidential Exporters' Directory, which lists Canadian export firms and details of their products. Copies of this Directory are in every Trade Commissioner's office and are used as a means of keeping foreign buyers in touch with Canadian manufacturers offering desired commodities.

It is the general aim of the Department to relax or remove wartime export controls as quickly as possible in order to facilitate export. When the Export Division came into existence in November, 1945, the Export Permit Branch was brought under its jurisdiction. Controls over more and more items are being removed, but there are commodities still in short supply, particularly foodstuffs, textiles and clothing, steel, lumber, etc., the distribution of which still demands close surveillance. While permits are required for these short-supply materials, an effort is being made constantly to ease restrictions and give Canadian shippers as much freedom in choice of markets as possible within the limited quantities available for export. Certain commodities are subject to export quotas, which are prepared by the Commodity Officers in conjunction with the Wartime Prices and Trade Board or the Department of Reconstruction and Supply.

The Export Division services the United Kingdom token shipment scheme, under which limited quantities of manufactured articles, at present regarded by the United Kingdom authorities as non-essential, are licensed for importation.

Import Division.—An Import Division of the Foreign Trade Service was established soon after the end of the War, as it was recognized that a leading exporting nation must also be an importing nation. This accorded with recognition of the primary problem in foreign trade promotion, that exchange be made available to purchase exports, and of the relationship of Canada as a customer to the export sale of Canadian goods.

The Import Division is the link between Canadian importers and the Trade Commissioner Service and corresponds to the Export Division in its particular field. The Division maintains close contact with Canadian importers, and uses facilities of the Trade Commissioner Service to reduce the difficulties experienced by Canadian importers and foreign exporters. It extends to Canadian importers assistance that can be provided in the foreign field by the Trade Commissioner Service.

The Import Division maintains a directory of Canadian importers and foreign exporters, classified according to the field of their activities. This directory assists the Trade Commissioners in their respective territories, serving as a guide. It also maintains a Canadian Trade Services Directory, copies of which are supplied to Trade Commissioners. This contains condensed reference material concerning Canadian requirements on customs, invoicing, packaging, marketing of goods, available freight and forwarding facilities, steamship rates, rail transportation and relative marketing data. The primary purpose of this service is to obtain recognition abroad for Canada as an organized market, and to provide a reference in dealing with requests for assistance received from importers and their foreign connections.

Commodity specialists in the Division assist importers by providing information concerning new sources of supply of foreign raw materials and food products, and reports on the remaining war-engendered obstacles or restrictions in foreign markets.

They also investigate import requirements in general. A manufactured goods section is maintained to assist importers of component parts, industrial equipment and finished goods.

In conjunction with other administrative authorities, the Import Division is concerned with the fair allocation to Canada of products subject to international control and distribution. Through the Trade Commissioner Service, it undertakes negotiations with foreign governments which regulate the sale of their exportable surpluses in world markets, thereby protecting Canadian interests.

Industrial Development Division.—This Division has been established recently to co-ordinate Federal assistance in the establishment of new industries in Canada, both of domestic and foreign origin. Close liaison is maintained with a widespread network of organizations throughout Canada, including industrial development departments of the provinces, municipalities, railways, banks, power companies, chambers of commerce, boards of trade, the Canadian Manufacturers' Association and other promotional agencies, and with trade commissioners and other Canadian Government offices abroad. Numerous enquiries from foreign concerns and individuals regarding the manufacture of new products in Canada under licence or royalty, and the placing of inventions are also processed.

Programs for the training of foreign technicians in Canada are instituted and carried out by the division. Seventy-five Chinese have been trained in Canadian industry during the past year, and a similar program for Indian trainees is now in progress.

Working in collaboration with the Area Sections, of the Canadian Trade Commissioner Service, this Division plans itineraries for visiting delegations and industrial technicians, and on occasion sends an official to conduct the tour. Arrangements are also made for visiting foreign government officials, technicians, lecturers, scientists and students.

Also included in the duties of the Division are, membership in various interdepartmental committees concerned with industrial studies and development, the processing of reparation plants and equipment, the despatch of technical investigators to Germany, and the admission of German scientists to Canada for the benefit of Canadian industry. The Division also provides liaison with the War Assets Corporation in the disposal of surplus equipment, particularly for export. Every effort is made to maintain close contact with new industries in the solution of their problems and the development of plans for export.

Trade Publicity Division.—The principal function of the Trade Publicity Division is to furnish the commercial community of Canada with information concerning the assistance obtainable by exporters and importers from the Foreign Trade Service. This Division is also responsible for stimulating interest among business men and other members of the general public in commercial relations with other countries, as their prosperity depends to a large extent on the development of foreign trade. The attention of exporters and potential exporters is directed to opportunities for the disposal of their products in markets abroad, and of importers to the sources of supply for raw materials and consumer goods unobtainable in this country. Its principal educational and informative medium is "Foreign Trade", a weekly publication of the Foreign Trade Service, in which are reproduced reports of Canadian Trade Commissioners on conditions in their respective territories, articles by Head Office personnel and economists of the Dominion Bureau of Statistics, news items and charts portraying trade trends. Press releases are prepared and distributed to newspapers at home, and material of a similar character despatched to Canadian Trade Commissioners for distribution to newspapers abroad. Pamphlets and brochures are in the course of preparation to supplement other information on foreign markets, sources of supply, documentation, regulations and trade restrictions. Assistance is rendered to correspondents of newspapers and periodicals at home and abroad in the preparation of articles pertaining to various phases of Canada's external trade. The educational work of this Division is supported with advertising at home and abroad. Although the Trade Publicity Division is part of the Foreign Trade Service, it assists associated agencies of the Department of Trade and Commerce concerned with the development of foreign trade. Other publicity media, such as films and radio broadcasting, are being explored.

Subsection 2.—Canadian Commercial Corporation

By Order in Council P.C. 1218 of Mar. 29, 1946, the Canadian Commercial Corporation was established to succeed the Canadian Export Board in purchasing commodities for UNRRA and the governments of other countries. This Corporation was also established as an agency for the purchase of Canadian import requirements in cases where these purchases could not be made by private firms without a government intermediary.

By Order in Council P.C. 314, of Feb. 5, 1947, effective Feb. 1, 1947, the power, duty and function vested in the Minister of Reconstruction and Supply, under the Department of Reconstruction and Supply Act of 1945, and the Department of Munitions and Supply Act, to buy or otherwise acquire, manufacture or otherwise produce munitions of war or supplies and to construct or carry out projects required by the Department of National Defence, was transferred from the Minister of Reconstruction and Supply to the Minister of Trade and Commerce. Facilities of the Canadian Commercial Corporation are now utilized in arranging for the procurement of supplies for the Department of National Defence.

Subsection 3.—Canadian Government Exhibition Commission

The Canadian Government Exhibition Commission has been reorganized to provide assistance in publicizing Canada and selling her products abroad. Under the terms of reference, the Commission is solely responsible for the construction and administration of all government exhibits in international expositions, trade fairs and displays outside of Canada, in which the Canadian Government may decide to participate. The Commission has also been charged with the responsibility of organizing the first Canadian International Trade Fair, which will be held at Toronto from May 31 to June 12, 1948. Manufacturers and producers in Canada and other countries will have an opportunity of displaying their products at this fair.

The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays. When requested, it is prepared to advise individual Canadian companies in the preparation of their exhibits.

Subsection 4.—Wheat and Grain Division

The problems of Canada's grain trade and milling industry are handled by the Wheat and Grain Division, close liaison being maintained with the various organizations connected with the trade. The Division acts as a procurement agency in securing supplies of cereals and certain cereal products for the Supply Missions of various countries and also for UNRRA's requirements. The Director of the Division serves as the Secretary to the Wheat Committee of the Cabinet and as the departmental liaison officer to the Canadian Wheat Board. In addition, the Director represents Canada on the International Wheat Council.

Subsection 5.—Export Credits

For the general purpose of protecting and expanding Canadian foreign trade interests, the Export Credits Insurance Act was passed by Parliament in August, 1944. The Act is in two Parts, Part I incorporating the Export Credits Insurance Corporation, and Part II providing for loans or guarantees to governments of other countries or their agencies.

Export Credits Insurance Corporation.—Administered by a board of directors, including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada, the Export Credits Insurance Corporation insures exporters against credits losses involved in the export or an agreement for the export of goods. Policies are issued on a yearly basis, covering exporters' sales to all countries and protecting them against certain risks of loss involved in foreign trade. The main risks covered by Export Credits Insurance Policies include: insolvency or protracted default on the part of the buyer; exchange restrictions in the buyer's country preventing the transfer of funds to Canada; cancellation or non-renewal of an import licence or the imposition of restrictions on the importation of goods not previously subject to restrictions; the occurrence of war between the buyer's country and Canada, or of war, revolution, etc., in the buyer's country; and additional transport or insurance charges occasioned by interruption or diversion of voyage outside Canada or continental United States.

The insurance is available under two main classifications: (1) General Commodities, (2) Capital Goods. Coverage for General Commodities can be procured by exporters under two types of Policies: (1) the Contracts Policy, which insures an exporter against loss from the time he books the order until payment is received; or (2) the Shipments Policy, obtainable at lower rates of premium, and which covers the exporter from the time of shipment until payment is received. Insurance of Capital Goods offers protection to exporters of such commodities as plant equipment, heavy machinery, etc., which are subject to extended credit of longer periods than is customary for General Commodities. Specific policies are issued for transactions involving capital goods, but the general terms and conditions are the same as those applicable to policies for general commodities.

The Corporation insures exporters under all policies up to 85 p.c. of the contract price, or gross invoice value of shipments. This co-insurance plan also operates in the distribution of recoveries obtained after payment of a loss, and these recoveries are shared by the Corporation and the exporter in the proportion of 85 p.c. and 15 p.c., respectively.

Loans to Foreign Governments.—Part II of the Export Credit Insurance Act provides for the extension of loans to foreign countries for the purpose of developing trade between Canada and those countries. The Act empowers the Governor in Council, on the recommendation of the Minister of Finance and the Minister of Trade and Commerce "if he deems it advisable for the purpose of facilitating and developing trade between Canada and any other country", to make loans to, guarantee the obligations of, or purchase, acquire or guarantee any security issued by the government or by the agency of the government of such country. These loans, guarantees, acquisitions or purchases must be requested by the government concerned, which must undertake to indemnify the Government of Canada against the loss in connection therewith. (See also p. 849.)

Section 2.—The Development of Tariffs

A short sketch of trade and tariffs prior to Confederation is given at pp. 480-482 of the 1940 edition of the Year Book. The 1942 Year Book, at pp. 427-428, traces the development from Confederation to the adoption of the present form of preferential tariff in 1904.

Owing to the limitations of space in the Year Book, it has been necessary, in regard to tariffs, to adopt the policy of confining any detail regarding commodities and countries to tariff relationships at present in force, and to summarize as much as possible historical data and details of preceding tariffs, giving references where possible to those editions of the Year Book where extended treatments can be found.

Subsection 1.—The Canadian Tariff Structure

The Canadian Tariff consists mainly of three sets of rates, viz., Preferential, Intermediate, and General. British Preferential rates consisted at first (1898) of a remission of 25 p.c. of the duties ordinarily paid but later (1900) were advanced to 33⅓ p.c. and, after 1904, took the form of a specially low rate of duty on almost all imported dutiable commodities. This is the first broad category of the tariff structure and these rates are applied to specified goods from British countries if shipped direct to Canada. On certain goods special rates may be applied under the British Preferential tariff; these special rates are lower on those goods than the ordinary British Preferential scale.

The second stage in the tariff edifice is the Intermediate rates. These rates apply to goods from countries that have been accorded tariff treatment more favourable than the General Tariff but which are not entitled to the British Preferential rate. To certain non-British countries, a special concession under the Intermediate rates may be granted and rates lower than the Intermediate apply by agreement.

The third class of duties is the General Tariff. This is levied on all imports that are not covered by Preferential or Intermediate rates.

British Preferential rates apply to all countries within the Empire. They may, however, be modified downward in their application to specific countries when trade agreements are being revised or discussed between Canada and other Dominions. The whole tariff structure is a very complicated piece of administrative machinery. Almost every budget that is brought down in the House of Commons changes the incidence of the tariff in some particulars. It would be impossible at this place to attempt a discussion of tariff schedules. The schedules and rates in force at any particular time may be obtained from the Department of National Revenue, which is responsible for administering the Customs Tariff.

In all cases where the tariff applies, there are provisions for drawbacks of duty on imports of semi-processed goods used in the manufacture of products later exported. The purpose of these drawbacks is to give Canadian manufacturers a fair basis of competition with foreign producers of similar goods, where it is felt to be warranted. There is a second class of drawbacks known as "home consumption" drawbacks; these apply mainly to imported materials used in the production of specified classes of goods manufactured for home consumption.

Too often one-sided competition arises out of unfair practices, such as dumping or the manipulation of exchange advantages. Wide powers have been given in certain instances to supplement tariff provisions. Thus the Minister of National Revenue or, through him, the customs officials have at times been empowered to establish a "fair market value" as a basis of applying duties to be collected. The term "fair market value" is vague and open to various interpretations and has been frequently criticized, but in exceptional cases, for which they are designed, such valuations have proved effective.

The exchange situation as it affects the Tariff is a different problem. A foreign currency that has become considerably depreciated in relation to the Canadian dollar enables the country concerned to export goods to Canada under a very definite advantage and customs officials have been given power, under conditions such as these, to value imports from such countries at a "fair rate of exchange". Much, of course, depends on the manner in which the above powers are applied by the administrative officials and their understanding of the reasons for their application, and, while the powers of fixing "fair market value" and "fair rate of exchange" have been applied to meet extraordinary conditions in the past, these powers have lately been modified by clauses in trade agreements drawn up with individual countries.

The Tariff Board.—The Canadian Tariff Act was written in 1907 and, although there have been many changes and revisions, there has been no complete overhaul since that time. In 1931, a Tariff Board was established to make inquiry into and report on any matter in relation to goods that are subject to or exempt from customs or excise duties or on which the Minister of Finance desires information. The duties of this Board are more specifically described at pp. 965-966 of the 1941 Year Book. The Tariff Board has been inoperative since the beginning of the War in 1939, in view of the turn taken by wartime trade. Its officers and experts worked with various war bureaus and its earlier research is now unrelated to the wide changes that have been brought about in industry and trade as a result of the War. In the post-war formulation of Canadian trade and tariff policies, a change has been introduced by the setting up of a special Interdepartmental Committee. The Canadian Tariff Board has not been abolished, indeed the Chairman of the Board is also head of the Interdepartmental Committee, but will resume its functions along with the Committee. The Committee will hear representations from industrialists and businessmen. These arrangements should serve a useful purpose in providing valuable guidance to the Government in the formulation of trade policy.

Subsection 2.—Tariff Relationships with Other Countries

Trade agreements entered into by Canada with the United Kingdom, Eire, Australia, New Zealand, Union of South Africa, Southern Rhodesia* and the British West Indies are dealt with at pp. 383-386 of the 1941 Year Book. Reciprocal tariff arrangements of Canada with Argentina, Brazil, Chile and Ecuador are reviewed in the 1942 Year Book at pp. 429-431. Canada's trading position as affected by commercial agreements in respect of Bolivia, Colombia, Costa Rica, Dominican Republic, Guatemala, Haiti, Panama, Paraguay, Portugal, Salvador, Spain, Sweden, Switzerland, United States, Uruguay and Venezuela, continues as outlined in the 1941 Year Book at pp. 387-393.

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* This Agreement was terminated as from Jan. 2, 1938, but each country, in its own legislation, still grants tariff preferences to the other.

Reinstatement of Agreements Suspended During War.—During the War, Canadian trade agreements and similar commercial treaty arrangements with several countries were terminated automatically or suspended by application of Enemy Trade Regulations (see p. 866). Since the end of hostilities, however, trading has been resumed with a number of friendly countries that had been under enemy occupation and the Trade Agreements with them have been reinstated. An exchange of notes of July 19-24, 1945, between Canada and Czechoslovakia terminated the suspension of the Convention of Commerce of Mar. 15, 1928, between the two countries. A similar arrangement was made with the Netherlands by an exchange of notes of Feb. 1-5, 1946, reinstating the Convention of Commerce of July 11, 1924, between Canada and the Netherlands including Curaçao and Surinam but, since trade had not been resumed between Canada and the Netherlands East Indies, it was agreed that the Convention would not, for the present, be operative for that territory. Canada has now accorded to Belgium and Luxembourg, Denmark, France, Norway, Poland and Yugoslavia the benefits of the Trade Agreements made with them but suspended during the period of hostilities. Syria and Lebanon, formerly under French Mandate, trade relations with which were governed by the Franco-Canadian Trade Agreement, continues to accord Canada most-favoured-nation treatment. Reciprocal treatment was extended by Canada to Syria and Lebanon under an Order in Council of Nov. 19, 1946.

On Nov. 21, 1946, by Order in Council, the benefits of the Intermediate tariff were extended to products originating in and coming from Italy when conveyed without transhipment from a port in Italy or from a port of a country enjoying the benefits of the British Preferential or Intermediate tariffs into a Customs port of Canada. In return, Canadian goods imported into Italy are accorded most-favoured-nation treatment.

Imports into Canada from countries entitled to most-favoured-nation treatment are accorded the intermediate rates of the Canadian tariff and any lower duties provided for in the Canada-France, Canada-Poland and Canada-United States Agreements. The reciprocal advantages accorded to Canada by the other countries depend upon the tariff system.

Other Trade Agreements Concluded in 1946.—*Mexico.*—A Canadian Trade Mission visited Mexico, Central America and Colombia in February, 1946, and further extended Canada's friendly trade relations with Latin America by the conclusion of Trade Agreements with Mexico and Colombia.

The Trade Agreement with Mexico provides for the exchange of most-favoured-nation treatment between the two countries in matters concerning customs duties and subsidiary charges as well as in respect of rules and formalities connected with importation and of laws and regulations affecting the taxation, sale, distribution or use of imported goods. Under the Agreement, imports into Canada from Mexico, previously subject to the General Tariff, are accorded the Intermediate tariff and any lower rates granted by Canada to other foreign countries. The tariff treatment accorded by Canada to other British countries is excluded from the operation of the Agreement. No immediate reduction in customs duties was made by Mexico for Canadian goods as the Mexican tariff consists of a single column of duties applicable equally to imports from all countries, and any tariff reductions made by Mexico in favour of a particular country, for example those arising out of the Mexico-United States Agreement of 1942, were generalized and made applicable to all other countries, including Canada. The Agreement came into force provisionally on Feb. 8, 1946, the date of its signature and, during its provisional application, may be terminated on three months' notice by either party. Thirty days after exchange of ratifications in Ottawa, the Agreement is to go into force definitely for two years. Its duration is automatically continued thereafter for one-year periods, subject to termination on six months' notice by either party.

Colombia.—The Trade Agreement with Colombia was signed on Feb. 20, 1946. This Agreement will come into effect thirty days after exchange of ratifications in Ottawa and is to remain in force for two years and thereafter until terminated on six months' notice by either party. In general, it consolidates the existing tariff treatment extended by each country to the other as provided by a Treaty of Commerce between Colombia and the United Kingdom concluded in 1866 and which governed also Canada's trade relations with Colombia. The new Agreement marks the establishment of the first direct trade convention between Colombia and Canada and it provides in general, for the exchange of most-favoured-nation treatment as described above with respect to the treaty of Mexico. The same concessions are given by Canada to Colombia as to Mexico and, in return, Canada receives the benefit of duty reductions established by the 1935 Colombia-United States Agreement.

Nicaragua.—A Trade Agreement was signed on Dec. 19, 1946, between Canada and Nicaragua, providing for the exchange of most-favoured-nation treatment in matters relating to customs duties and subsidiary charges, as well as in respect of rules and formalities affecting taxation, sale, distribution or use of imported goods.

Under the terms of this Agreement, goods imported into Canada from Nicaragua, previously subject to the General Tariff, will now be accorded the benefits of the Canadian Intermediate tariff and any lower rates granted by Canada to other foreign countries.

This Agreement does not involve at present any new reductions in the tariff of Nicaragua imposed on imports from Canada, since that tariff has only a single schedule, certain concessions formerly accorded by Nicaragua to the United States and France having been suspended. In the event that these concessions should be re-established in whole or in part, the reductions will apply also to Canada. Similarly, other concessions which may be extended to other countries will also be extended automatically to Canada. Under a provision of the United States-Nicaragua Trade Agreement, still in force, the fee collected for legalization of consular invoices covering shipments of goods specified in the Agreement is 3 p.c. ad valorem. Canada now becomes entitled to this rate instead of the fee of 5 p.c. ad valorem previously payable. Advantages accorded now or in the future by Nicaragua to other Central American countries or by Canada to other British Empire countries are excepted from the operation of this Agreement.

Other provisions of the Agreement assure each country equitable treatment in the other with regard to the application of internal taxes, quantitative restrictions, the operation of monopolies and in according contracts for public works. Provision is made for consultation in the event of either party adopting any measure which the other party considers as tending to impair or nullify the objects of the Agreement.

The Agreement came into provisional effect at date of signature, Dec. 19, 1946, and may be terminated on three months' notice by either government. Thirty days after exchange of instruments of ratification, the Agreement is to go into force definitively for one year and thereafter until terminated on six months' notice by either party.

China.—A modus vivendi with China was concluded on Sept. 26, 1946, by an exchange of notes between the two countries, and came into force two days later. It provides for reciprocal exchange of most-favoured-nation treatment in tariff matters. This agreement is the first commercial convention concluded between Canada and China by direct negotiation. It is to continue in force for a definite period of one year and beyond that until terminated on three months' notice by either country.

Trade Agreements at Present in Force.—At the present time (Mar. 31, 1947), Canada's tariff relations with other countries are affected by trade agreements, conventions of commerce or similar arrangements made directly between Canada and the country concerned or by participation in treaties made by the United Kingdom with foreign powers, listed as follows:—

Empire Countries

Country	Treaty or Convention	Terms
UNITED KINGDOM	Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. (Modified by United Kingdom-United States Trade Agreement of Nov. 17, 1938.)	Various concessions on both sides, increasing preference formerly granted. Also extends preferential system between Canada and the Colonial Empire. Made until Aug. 20, 1940, and thereafter until terminated on six months' notice.
EIRE	Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933.	Canada concedes British Preferential Tariff in return for most-favoured-nation treatment in Eire. Made for five years and thereafter until terminated on six months' notice.
AUSTRALIA	Trade Agreement signed July 8, 1931; in force Aug. 3, 1931.	Each country accords the other reduced rates on schedules of goods, and otherwise (with a few exceptions in Australia) exchange their British Preferential Tariffs with each other. Made for one year and thereafter until terminated on six months' notice.
NEW ZEALAND	Trade Agreement signed Apr. 23, 1932; in force May 24, 1932.	Exchange specific preferences on scheduled goods and otherwise concede British Preferential Tariffs reciprocally. Made for one year, but kept in force by short-term extensions. Since Sept. 30, 1941, in force until terminated by six months' notice.
UNION OF SOUTH AFRICA.	Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932.	Agreement extends list of preferences formerly exchanged in absence of formal Agreement. Made for five years and thereafter until terminated on six months' notice.

Empire Countries—concluded

Country	Treaty or Convention	Terms
British West Indies	Trade Agreement signed July 6, 1925; in force Apr. 30, 1927.	Exchange of specific margins of preferences. Made for twelve years and thereafter until terminated on one year's notice. A Canadian notice of Nov. 23, 1938, terminating the Agreement, was replaced by one of Dec. 27, 1939, continuing the Agreement subject to termination on six months' notice.

Non-Empire Countries

Country	Treaty or Convention	Terms
Argentina	Trade Agreement signed Oct. 2, 1941; provisionally in force Nov. 15, 1941.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months' notice. To come into force definitely thirty days after exchange of ratifications for two years and thereafter until terminated on six months' notice.
Belgium and Luxembourg and Belgian Colonies.	Convention of Commerce signed July 3, 1924; in force Oct. 22, 1924.	Exchange of most-favoured-nation treatment. Made for four years and thereafter until terminated on one year's notice.
Bolivia	Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom - Bolivia Treaty of Commerce of Aug. 1, 1911.	Exchange of most-favoured-nation treatment. May be terminated on one year's notice.
Brazil	Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943.	Exchange of most-favoured-nation treatment. Made for two years from Apr. 16, 1943, and thereafter for one-year periods until terminated on six months' notice.
Chile	Trade Agreement signed Sept. 10, 1941; in force provisionally Oct. 15, 1941, and definitively on Oct. 29, 1943.	Exchange of most-favoured-nation treatment. Made for two years from Oct. 29, 1943, and thereafter until terminated on six months' notice.
China	Modus vivendi signed Sept. 26, 1946, in effect Sept. 28, 1946.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on three months' notice.

Non-Empire Countries—continued

Country	Treaty or Convention	Terms
COLOMBIA	Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada.	Exchange of most-favoured-nation treatment. Protocol of Aug. 20, 1912, provides means for separate termination by Dominions on one year's notice. Exchange of Notes Dec. 30, 1938, continued Treaty in force until Sept. 30, 1939, and thereafter until terminated on three months' notice.
	To be replaced by Trade Agreement signed Feb. 20, 1946.	Exchange of most-favoured-nation treatment. To come into force thirty days after exchange of ratification for two years and thereafter until terminated on six months' notice.
COSTA RICA	Exchange of Notes with United Kingdom of Mar. 1-2, 1933, and Canadian Order in Council of July 20, 1935.	Exchange of most-favoured-nation treatment.
CZECHOSLOVAKIA	Convention of Commerce signed Mar. 15, 1928; in force Nov. 14, 1928.	Exchange of most-favoured-nation treatment. Made for four years and thereafter until terminated on one year's notice.
DENMARK	Treaties of Peace and Commerce with United Kingdom of Feb. 13, 1660-61 and July 11, 1670, apply to Canada.	Exchange of most-favoured-nation treatment. Declaration of May 9, 1912, provides means for separate termination by Dominions on one year's notice.
DOMINICAN REPUBLIC	Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1940, and definitively Jan. 22, 1941.	Exchange of most-favoured-nation treatment. Made for three years from Jan. 22, 1941, and thereafter until terminated on six months' notice.
ECUADOR	Modus vivendi by Exchange of Notes of Aug. 26, 1941; in force Oct. 1, 1941.	Exchange of most-favoured-nation treatment. Made for an indefinite period subject to termination on three months' notice.
FRANCE AND FRENCH COLONIES.	Trade Agreement signed May 12, 1933; in force June 10, 1933. Exchange of Notes of Sept. 29, 1934 and additional Protocol of Feb. 26, 1935, extending concessions on both sides.	As regards scheduled goods, Canada's actual Intermediate Tariff or percentage reductions from Intermediate exchanged for French Minimum Tariff or percentage reductions from General Tariff, also quota arrangements. Made for one year and thereafter until terminated on three months' notice.

Non-Empire Countries—continued

Country	Treaty or Convention	Terms
GUATEMALA	Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939.	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months' notice.
HAITI	Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on six months' notice.
ITALY	Special Arrangement by Order in Council of Nov. 21, 1946.	Canadian Intermediate Tariff accorded to Italy in exchange for most-favoured-nation treatment of Canadian goods by Italy.
LEBANON	Special Arrangement by Order in Council of Nov. 19, 1946.	Exchange of most-favoured-nation treatment.
MEXICO	Trade Agreement signed Feb. 8, 1946; in force provisionally same date.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months' notice. To come into force definitely thirty days after exchange of ratifications for two years and thereafter until terminated on six months' notice.
NETHERLANDS, SURINAM AND CURAÇAO.	Convention of Commerce, signed July 11, 1924; in force Oct. 28, 1925.	Exchange of most-favoured-nation treatment. Made for four years and thereafter until terminated on one year's notice.
NICARAGUA	Trade Agreement signed Dec. 19, 1946, in force provisionally same date.	Exchange of most-favoured-nation treatment. Provisional application may be terminated on three months' notice. To come into force definitively thirty days after exchange of ratifications for one year and thereafter until terminated on six months' notice.
NORWAY	Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1928, applies to Canada.	Exchange of most-favoured-nation treatment. Convention of May 16, 1913, provides means for separate termination by Dominions on one year's notice.
PANAMA	Order in Council of July 20, 1935, accepted Article 12 of the United Kingdom - Panama Treaty of Commerce of Sept. 25, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice.
PARAGUAY	Exchange of Notes of May 21, 1940; in force June 21, 1940.	Canadian Intermediate Tariff exchanged for most-favoured-nation treatment in Paraguay. In force until terminated on three months' notice.

Non-Empire Countries—continued

Country	Treaty or Convention	Terms
POLAND	Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936.	Exchange of most-favoured-nation treatment and special reductions for limited lists of goods. Made for one year and thereafter until terminated on three months' notice.
PORTUGAL, INCLUDING MADEIRA, PORTO SANTO, AND AZORES.	Trade Agreements Act of June 11, 1928, accepted Article 21 of the United Kingdom - Portugal Treaty of Commerce of Aug. 12, 1914; in force Oct. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice.
SALVADOR	Exchange of Notes of Nov. 2, 1937; in force Nov. 17, 1937.	Exchange of most-favoured-nation treatment. Made for one year and thereafter until terminated on four months' notice.
SPAIN	Spanish Treaty Act of June 11, 1928, sanctioned United Kingdom-Spain Treaty of Commerce of Oct. 31, 1922 (revised Apr. 5, 1927); in force Aug. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on six months' notice.
SWEDEN	United Kingdom - Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice. Declaration of Nov. 27, 1911, provides means for separate termination by Dominions on one year's notice.
SWITZERLAND	United Kingdom – Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice. Convention of Mar. 30, 1914, provides means for separate termination by Dominions on one year's notice.
SYRIA	Special Arrangement by Order in Council of Nov. 19, 1946.	Exchange of most-favoured-nation treatment.
UNITED STATES	Trade Agreement signed Nov. 17, 1938; provisionally in force Nov. 26, 1938; duty concessions provisionally in force Jan. 1, 1939; fully in force June 17, 1939. Supplementary Trade Agreement signed Dec. 13, 1940.	Terms include grant of reduced or fixed rates on scheduled goods by both countries and mutual exchange of most-favoured - nation treatment. Made for three years from Nov. 26, 1938, and thereafter until terminated on six months' notice. Supplementary Trade Agreement provides for quota on foxes and fox skins entering the United States.
URUGUAY	Trade Agreement signed Aug. 12, 1936; in force May 15, 1940.	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months' notice.

Non-Empire Countries—concluded

Country	Treaty or Convention	Terms
VENEZUELA	Modus vivendi signed Mar. 26, 1941; in force Apr. 9, 1941.	Exchange of most-favoured-nation treatment. Made for one year subject to renewal or termination on three months' notice; renewed annually by Exchange of Notes, subject to termination on three months' notice.
YUGOSLAVIA	Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom - Serb - Croat-Slovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one year's notice.

Section 3.—The Easing of Controls on Enemy Trading Regulations*

Because of occupation by an enemy State, or by reason of real or apprehended hostilities, a number of countries, during the years 1939 to 1942, were brought within the scope of the provisions of the Enemy Trading Regulations (originally brought into force by Order in Council P.C. 2512 of Sept. 5, 1939, later provided for under "Revised Regulations Respecting Trading with the Enemy, 1943", Order in Council P.C. 8526 dated Nov. 13, 1942 and now included in "The Trading with the Enemy (Transitional Powers) Act"). A list of these countries or territories and the dates on which they were brought under the Regulations is given at p. 474 of the 1945 Year Book.

The Regulations prohibited trading or attempting to trade with "enemy territories"; dealing in the property of enemies for the purpose of enabling them to obtain money or credit thereon; aiding or abetting any person, whether resident in Canada or not, to so deal in enemy property; knowingly discharging any enemy debt, promissory note or bill of exchange, or purchasing enemy currency.

Beginning late in 1943, it became possible to grant permission for the resumption of trade with certain liberated and "enemy" areas. The areas to which such permission has been granted and the dates are listed in the following statement:—

Territory	*Date*
Albania	June 25, 1946
Algeria	Nov. 24, 1943
Belgium	Feb. 24, 1945
Bulgaria	May 8, 1946
Burma	Nov. 23, 1945
Channel Islands	July 7, 1945
China	Dec. 15, 1945
Corsica	Nov. 24, 1943
Czechoslovakia	July 7, 1945
Danzig	Oct. 15, 1946
Denmark	July 7, 1945
Estonia	June 25, 1946
Finland	Sept. 14, 1945
Formosa	June 25, 1946
France, Andorra and Monaco	Jan. 31, 1945
French Zone of Morocco	Nov. 24, 1943
Greece	July 7, 1945
Hong Kong	Nov. 23, 1945
Hungary	May 8, 1946
Indo-China	Aug. 22, 1946
Italy	Oct. 13, 1945
Latvia	June 25, 1946
Lithuania	June 25, 1946
Luxembourg	July 7, 1945
Malay Peninsula	Nov. 23, 1945
Netherlands	July 7, 1945
Netherlands East Indies	Aug. 22, 1946
Norway	July 7, 1945
Philippine Islands	July 7, 1945
Poland	June 25, 1946
Roumania	May 8, 1946
Singapore	Nov. 23, 1945
State of North Borneo	Nov. 23, 1945
State of Sarawak	Nov. 23, 1945
Thailand	Jan. 21, 1946
Tunisia	Nov. 24, 1943
Yugoslavia	July 7, 1945
Zara	Oct. 15, 1946

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* Revised by E. H. Coleman, C.M.G., K.C., LL.D., Under Secretary of State, Deputy Registrar General and Deputy Custodian of Enemy Property, Department of the Secretary of State, Ottawa.

Limited trade has also been authorized for Japan and Korea from June 25, 1946. In the case of these two countries, trade must be carried on exclusively through the Canadian Commercial Corporation and is subject to the various controls still in force. Limited relief shipments by individual Canadian citizens are permitted, subject to the regulations of the Export Permit Branch and the Post Office Department.

Trade with Austria has been authorized from Sept. 27, 1946, and is subject to supplying goods to or for the benefit of the Austrian State or any individual or body of persons carrying on business therein, or to obtaining goods from the Austrian State, such individuals or bodies of persons. The term "trade" is deemed to include transactions incidental to supplying or obtaining such goods and the paying, transmitting or receiving of money, negotiable instrument or security for money in respect of such trade.

Similarly, trade with Germany has been authorized from Apr. 23, 1947, and is subject to the same conditions as for Austria.

PART II.—ANALYSES OF FOREIGN COMMODITY TRADE*

Section 1.—Explanations *re* Canadian Trade Statistics

Foreign trade statistics are derived by recording the physical movement of goods outwards or inwards across the frontiers or through ocean ports and the valuations placed upon them at the time of movement. Such statistics cannot take cognizance of the complex financial transactions involved in this physical movement of goods and which may take place prior to or subsequent to the actual shipment (although in investigating the balance of international payments, as is done in Part III of this Chapter, such financial transactions are the main consideration).

Certain problems of procedure arise in recording trade statistics and require explanation. For the correct interpretation of the statistics of foreign trade, it is necessary that the following definitions and explanations of terms used be carefully kept in mind, if the true position of trade in relation to the total of Canada's international transactions is to be understood.

Quantities and Values.—In all tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

Imports: Valuation.—"Imports" means imports entered for consumption. "Entered for consumption" does not necessarily imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which, and at the time when, said merchandise was exported directly to Canada; but the value shall not be less than the actual cost of production at the time of shipment plus a reasonable advance for cost of selling and profit. (See Sects. 35 to 45 of the Customs Act.) Under these provisions and amendments thereto, some imports are given arbitrary valuations differing from those upon which actual payments for the imports are made.

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* This Part of the Chapter is based on statistics taken from reports prepared under the direction of L. A. Kane, Chief, External Trade Section, International Trade Division, Dominion Bureau of Statistics, Ottawa.

For Customs entry purposes, the value of the currency of the country of export is converted to Canadian currency at exchange ratios as authorized by law and Orders in Council. (See Sect. 55 of the Customs Act and Orders in Council respecting currency valuations.)

Canadian Exports: Valuation.—"Canadian produce" exported includes Canadian products or manufactures, also exports of commodities of foreign origin that have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminum extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

Foreign Exports: Valuation.—"Foreign produce" exported consists of foreign merchandise that had previously been imported (entered for home consumption). The value of such commodities is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

Countries to which Trade is Credited.—Imports are classified as received from the countries whence they were consigned to Canada. The countries of consignment are the countries from which the goods have come, without interruption of transit save in the course of transhipment or transfer from one means of conveyance to another. The countries whence goods are consigned are not necessarily the countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence dispatched, after longer or shorter interval, to Canada. In such cases the second country would be the country of consignment, to which the goods would be credited.

Exports are credited to the country to which they are consigned, whether that country possesses a seaboard or not. The country of consignment is the country to which goods exported from Canada are intended to pass, without interruption of transit save in the course of transhipment or transfer from one means of conveyance to another.

Discrepancies in Trade Statistics between Canada and Other Countries.—Canadian statistics of exports are rarely in exact agreement with the import figures of her customers and similar differences occur with Canadian imports. Many factors contribute to these discrepancies, among which are the following:—

1. Differences in the system of valuation used by Canada and the systems used by other countries. The differences may arise in several different ways:—

(*a*) Canadian exports are generally shown on an f.o.b. basis, that is, freight costs from the original point of consignment to the destination are excluded. Many countries value imports on a c.i.f. basis, and include the freight content. Canadian imports are valued at the fair market price at the point in the exporting country from which they are consigned. Other countries may include freight to the point of exit. A case in point is the United States valuation of coal shipped to Canada, which is always substantially higher than the corresponding Canadian import valuation.

(*b*) Customs evaluators may set arbitrary valuations on certain commodities for purposes of obtaining greater customs revenue or to protect the domestic market from dumping. This will naturally lead to differences between the figures of the two countries.

(*c*) Disturbances in currency relationships between countries may introduce an additional element of difference. The exporting country may use one rate and the importing country another.

2. The element of time lag is of considerable importance where Canadian exports are concerned, particularly with bulk goods shipped to other continents. There are always quantities of goods in movement at the beginning or end of any trading period, and these affect the comparability between the two countries for the same period of time.

3. The chief cause of difference between the recorded value of Canadian exports and reciprocal figures for the importing country, lies in the fact that exports from Canada are classified geographically according to country of consignment, which may not be the ultimate destination of the goods. Thus, it is possible that Canadian records may show an export as consigned to an intermediate country, and the country finally obtaining the goods as imports for consumption may record them either as an import from the intermediate country or from Canada. Despite these difficulties, country of consignment is the only satisfactory

method of classifying exports geographically. Frequently the exporter does not know at the time of shipment where the goods are ultimately going, and the need for haste in bringing out statistics limits the source of information to the export invoice and the customs invoice. The only definite information the shipper can show is the country to which the goods are immediately consigned. Furthermore, commodities such as wheat may change ownership and possibly destination while in transit from Canada.

The onus of reconciliation must, therefore, be placed on the importing nation. It alone has available the documentary evidence which will show the course of the goods from country of source to final destination.

An example of error arising out of classification according to consignment occurred in October and November of 1946. Wheat valued at $17,500,000 was shipped to the United States for eventual transhipment to the United Kingdom and elsewhere, with none of it to be consumed in the United States. At the time of forwarding no details of final destination were available, and the wheat appears in the trade returns as an export to the United States.

Imports from the United Kingdom.—Published statistics of Canadian imports entered for consumption have always included several items that may be considered of a non-commercial character. These items were never very large in pre-war years, but since 1939 their inclusion in the total value of imports, from the United Kingdom in particular, has tended to distort published data. The distinction between commercial and non-commercial imports is not always easy to establish, but three items have been segregated, as follows:—

(a) "Articles for the use of the Imperial Army, Navy and Air Force". These imports consisted almost entirely of war equipment of various kinds for experimental purposes, training and use in Canada by the United Kingdom Government. The values applied to the articles imported under this classification were nominal and no duty was paid.

(b) "Canadian goods returned". Before the War, this item amounted in value to several hundred thousand dollars annually. Late in 1945, however, the Canadian Government began the repatriation of large stocks of war equipment, the bulk of which was shipped from the United Kingdom. On entering Canada, they were classified under "Canadian goods returned" in the trade returns. They are not shown in the United Kingdom trade returns.

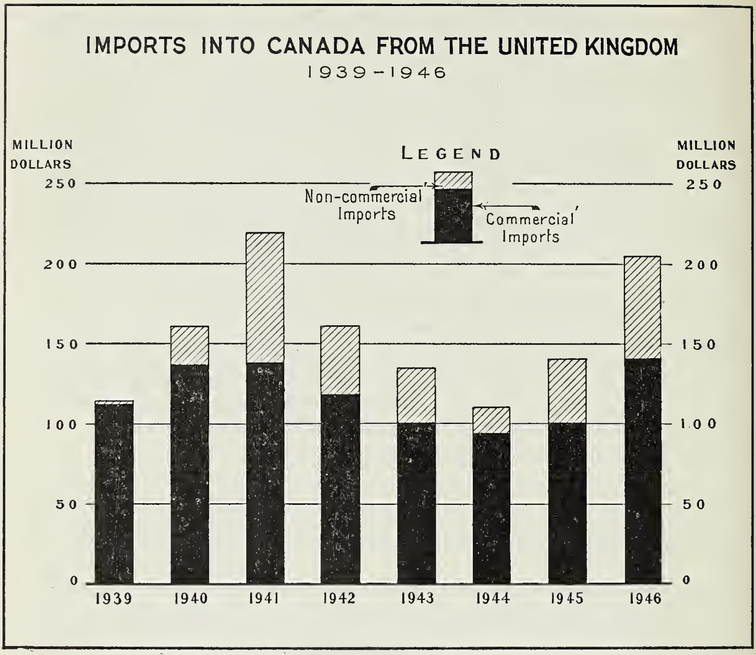
(c) Settlers' effects, the property of immigrants.

The chart on the following page and Statement below show the relation of these non-commercial items to the total.

I.—COMMERCIAL AND NON-COMMERCIAL IMPORTS FROM THE UNITED KINGDOM, 1939–46

Year	Articles for Imperial Forces	Canadian Goods Returned	Settlers' Effects	Non-Commercial Imports	Commercial Imports	Total Recorded Imports
	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
1939	0·8	0·4	0·6	1·8	112·2	114·0
1940	23·5	0·3	0·6	24·4	136·8	161·2
1941	81·2	0·1	0·1	81·4	138·0	219·4
1942	42·5	0·4	0·1	43·0	118·1	161·1
1943	34·3	0·1	[1]	34·4	100·6	135·0
1944	16·2	0·3	0·1	16·6	94·0	110·6
1945	21·2	18·8	0·2	40·2	100·3	140·5
1946	2·3	60·3	1·5	64·1	137·4	201·5

[1] Less than $50,000.



During the last few months of 1946, the proportion of non-commercial imports declined considerably and will probably fall to negligible proportions in 1947. When comparing 1946 figures with those of the war years, a more correct picture is presented by the use of commercial import figures as a basis for comparison.

Treatment of Gold in Trade Statistics.—The fact that gold is a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, the movement of gold in international trade is determined, almost exclusively, by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. In addition, gold is generally acceptable. It does not have to surmount tariff barriers and is normally assured a market at a relatively fixed price. It should also be noted that gold does not move in international trade in any direct or normal relation to sales and purchases. Changes in the Bank of Canada's stock of gold under earmark do not enter, therefore, into the trade statistics.

Since 1939, the statistics of movement of coin and bullion have been compiled by the Bank of Canada and the basis has been considerably changed from that previously shown in the Canada Year Book (see p. 528 of the 1940 edition). The following statement of net exports of non-monetary gold for years since 1939, on a monthly basis, is obtained from the Bank of Canada and is the only data that have since been given publicity.

Statistics showing the *net* exports of non-monetary gold, including changes in stocks held under earmark, which supplement the trade figures, are given below.

II.—NET EXPORTS OF NON-MONETARY GOLD, 1939-46

Month	1939	1940	1941	1942	1943	1944	1945	1946
	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
January	18·1	21·6	19·2	15·1	13·9	9·4	8·7	9·3
February	12·9	12·4	14·7	16·6	12·8	8·1	8·4	9·5
March	15·5	16·2	19·7	16·1	12·8	12·9	10·2	10·0
April	10·6	18·0	14·3	14·1	13·5	9·3	6·8	7·2
May	15·9	16·9	16·1	15·5	12·5	9·4	10·2	10·0
June	17·2	15·1	18·4	16·8	12·2	10·9	4·7	7·7
July	15·2	15·9	17·3	16·3	10·0	6·6	8·0	6·6
August	9·0	17·6	12·6	13·1	10·2	10·0	8·5	7·5
September	17·3	16·5	21·2	15·0	11·8	8·7	6·8	6·8
October	22·8	18·9	17·4	19·3	11·3	8·4	7·7	8·5
November	15·0	16·6	15·4	12·6	8·8	10·1	9·8	6·0
December	14·9	17·3	17·4	13·9	12·2	5·9	6·2	6·7
TOTALS	184·4	203·0	203·7	184·4	142·0	109·7	96·0	95·8

Section 2.—Distribution and Composition of Canadian Foreign Trade

Subsection 1.—Canada's Place in the World Economy

NOTE.—The information given immediately below was prepared for the Dominion-Provincial Conference which took place in 1941, and was published in Book 1, Part 1, Chapter 7 of the "Report of the Royal Commission on Dominion-Provincial Relations". It was reprinted at pp. 404 to 408 of the 1941 Canada Year Book. It is considered that, although changes in trade patterns arising out of the War just ended may affect slightly some of the content, this review remains an excellent presentation of the relationship between the Canadian economy and international trade. A few minor adjustments have been made where the changes are sufficiently large to necessitate revision.

Canada holds a particularly important place in the world economy, or at least in that section of the world economy that has been, or remains, organized on a basis of interdependent trade and financial relations and that operates as a functional whole. Although containing less than one per cent of the world's population, Canada ranked fifth in total trade in 1938, being fourth in exports and eighth in imports. The War of 1938-45 intensified the movement of Canadian goods abroad and the reverse flow into Canada. The volume of shipments to Allied Nations was limited only by the productive capacity of Canadian agriculture and war industry. The expanding munitions industry in Canada necessitated substantial increases in the import of fuels, machinery and materials from the United States. By 1942, Canada was outranked in trade volume only by the United States and the United Kingdom. In 1944, the peak year of production, nearly one-third of the total production of goods and services was exported entirely apart from the direct war expenditure and the requirements of Canadian troops overseas.

In order to maintain the present standard of living and to support the great capital investment that has been made to equip the country for an important place in the world economy, it is vital to Canada that the advantageous international division of labour—the principle on which the existing Canadian economy and standard of living are built—be maintained. Canada is far from being a self-sufficient country, and the achievement and maintenance of a position of importance in the world depend on full utilization of specialized resources of the country, and on trading them to the best advantage in order to acquire the things that are lacking.

A brief review of Canada's resources in relation to the international economy will make clear why Canada plays such a relatively large part in that system, and is so profoundly dependent on it. Canada can and does produce large surpluses of many agricultural products (cereals, potatoes, apples, cattle, pork and dairy products), of many forest products (pine and fir lumber, and spruce, poplar and balsam pulpwood), of many mineral products (gold, silver, copper, nickel, lead and zinc), and hydro-electric power more cheaply, i.e., with the application of relatively less capital and labour, than can be done in most other countries. On the other hand, Canada either cannot produce or is at a disadvantage in producing her own requirements of such essential industrial raw materials as iron, coal, oil, rubber and tin; of tropical fruits, fibres, and other natural products; and of many iron and steel, chemical and textile manufactures based on special local resources and techniques. Every country could, of course, display a list of surplus and deficit resources, but in few would both sides of the balance sheet contain such basically important products in such volume, and in few would the extremes be so great. Thus, Canada is at once the world's largest exporter of wheat, newsprint and non-ferrous metals, and one of the world's largest importers of coal, oil and steel products. It is in this distribution and peculiar character of Canada's resources, and in her lack of resources, that can be found the explanation for many of Canada's distinctive economic and public-finance problems.

Some of the salient features of Canada's trade are that both the staple imports and exports are mainly bulky, relatively low-value commodities and the sources of supply are distant from the markets and, therefore, cheap transportation is of vital importance. Of the chief staple exports, wheat required a very large capital investment in handling and shipping facilities and, to-day, requires an increasing capital investment in facilities for mechanized production. The forest and metal products, partly because of the technical character of Canadian resources, also required a very large capital investment in plant and in associated hydro-electric power developments. If these resources were to be developed at all, they had to be developed on the largest possible scale in order to secure the economies of mass production and to contribute to the support of the heavy initial overhead. But, in order to achieve this end, very large foreign markets were necessary; Canada produces five times her own consumption of wheat (excluding seed requirements); ten times her own consumption of her chief forest product—newsprint; and twenty times her own consumption of her non-ferrous metal production. Production of these large surpluses is necessary in order to give a wider distribution of the total overhead cost of developing these industries and to keep unit prices down to competitive levels. As a result of this kind of development, Canada before the War supplied about 40 p.c of the world export wheat market, two-thirds of the newsprint in the world export market, and 40 p.c. of the non-ferrous metals in the world export market. Canadian production of each of these products is a much smaller fraction of the total world production.

In other words, Canada, in spite of her comparative productive advantages, is forced into the position of being a marginal source of supply for many of these commodities. If a country that is producing 90 p.c. of its requirements and importing 10 p.c. is forced, or deliberately chooses, to reduce consumption, the imported 10 p.c. is likely to be the first sacrifice. Any substantial reduction in the proportion of the world market supplied by Canada is evidently bound to have profound effects on her ability to maintain competitive prices and support the huge investment made in anticipation of large-volume production. In a period of world depression, of reduced purchasing power, and of increasing trade restrictions, the relative status of industries in this position suffers. There are weaknesses, not only because such a small proportion of their production is consumed locally, but also because such a large proportion of the total international market is supplied by Canadian exports. Control of the marginal supply normally gives a bargaining advantage to the seller on a rising market but reacts to his disadvantage on a falling market. The situation has been intensified by the continual narrowing of the international trading world in the 1930's, which led to more abrupt and extreme price fluctuations than would occur in a broader market. When protected domestic industries develop in former markets, or when depression restricts demand for Canadian export staples, there will be excess productive capacity, and far more than the proportionate share of such excess capacity will inevitably appear in Canada.

The import staples, however, are in a somewhat different position. Large as are Canada's imports of basic industrial raw materials (such as coal, oil and iron) in relation to Canadian consumption and even in relation to total world trade in these commodities, they are only a very small fraction of the total production and of the consumption in the domestic markets of the chief producers. A fall in the Canadian demand is important but is not likely to have the same shattering effect on prices as a fall in the foreign demand for the chief Canadian staples.

The fact that the great bulk of Canada's trade is with the United States and the United Kingdom is a natural corollary of the distribution of resources and organization of the economy in each of those countries and in Canada, and is intensified by the virtual withdrawal of most of the rest of the world from the former system of international trade. Canada's geographical position and special relations with each of these countries give her certain advantages and elements of strength, but there are also liabilities. Canada's trade with both the United States and the United Kingdom is of vastly greater importance to Canada than their trade with Canada is to them; Canadian per capita exports to the United Kingdom in 1946 were approximately $50, and to the United States $70, compared with their exports to Canada of $3 and $10 per capita. Canadian trade with the United Kingdom is 16 p.c. of total Canadian trade, while United Kingdom's trade with Canada is only 8 p.c. of her total trade. Canadian trade with the United States is 55 p.c. of total Canadian trade, while trade of United States with Canada is only 15 p.c. of total United States trade. Changes in the trading policies of either of the two large countries or automatic changes in the terms of trade in response to differential price movements inevitably affect Canada far more than they affect the United Kingdom or the United States. Because of the greater vulnerability and lack of diversification, Canada's bargaining position is, on occasion, weakened and Canada is at a disadvantage in opposing unfavourable policies or in negotiating for more favourable policies.

Quite apart from the danger of directly unfavourable policies, which may be due to factors entirely unrelated to Canada but which may incidentally deal shattering blows to Canadian trade, is the inevitable swing in the terms of trade. Canadian trade with the United Kingdom and the United States is of a complementary nature and is a classic example of the working of a basically sound international division of labour. While Canadian cereals feed Britain, British textiles clothe Canadians; while Canadian products of forest and mine, processed by hydro-electric power, feed the industries of the United States, the coal and iron products of the United States equip Canadian factories. But in any exchange of this nature there may be, and are likely to be, wide variations in the price trends of the various classes of products. Thus, Canada may, at any time, find the prices of most of her exports declining more rapidly, or rising more slowly, than the prices of what she buys, or the reverse situation may result. In times of depression Canada finds the impact of the depression intensified by the fall in the real purchasing power of the bulk of her commodities (in the past decade, gold has been an important exception), while the United Kingdom and the United States can look forward to some important increases in the real value of their exports.

In all other external transactions, Canada is also vitally affected by the policy of the United Kingdom and, even more, by that of the United States. United Kingdom and United States investments in Canada; Canadian investments in the United Kingdom and the United States; the integration of a large portion of Canadian industries with those of the United States; the huge seasonal tourist exchange, periodic migrations of labour and the continuous exchange of individuals; and the existence of international labour, business, and professional organizations, all give rise to a continual ebb and flow of funds on a very large scale and a continual process of adjustment of prices, costs and profits. The total of these 'invisible' items in the balance of payments with the United States are almost as important as total transactions on merchandise account and, in some ways, may have an even more direct effect on comparative price levels and thus eventually on purchasing power parities. Canada, in the past, has followed virtually the full swing of violent fluctuations in the United States, modified only slightly by the greater stability of the United Kingdom. A vital difference in the effect of the notoriously abrupt and extremely fluctuating North American business cycle on Canada and on the United States is the substantially higher net income of the latter. Thus, Canada is compelled to accept the full measure of fluctuation that accompanies the highest standard of living in the world—without as high a standard of living to absorb it.

Besides tending to transmit to Canada the full extent of economic fluctuations in the United States, the invisible items of foreign trade give rise to some special features that intensify the pressure on the economy in times of depression. The most important item on the income side of the balance of payments transactions, other than commodity trade, is that of tourist expenditures (see pp. 909-911), which are luxury expenditures and likely to be drastically reduced in time of depression. On the payments side, the most important item is that of interest and dividend payments—a major portion of which is a fixed amount, and a large portion of which is due from Canadian Governments. In a period of falling prices, the real burden increases and if, in addition, there is a drop in the exchange value of the Canadian dollar, the real burden of the large portion payable in foreign currencies increases even more.

To summarize, Canada's position in both her trade and other financial relations with the outside world is largely that of her position in relation to the United States and the United Kingdom. As has been seen, Canada's trade with these two countries is all-important to her while their trade with Canada is of minor importance to them. Because of her possession of a few special resources, Canada should enjoy a particularly high export income and national income so long as any substantial measures of international division of labour and trade are permitted. But the provision of productive capacity to exploit these resources has involved heavy fixed charges, and Canada is forced to import on a large scale commodities in which she is deficient with the result that, while fixed costs are high and income is normally high, the income is likely to fluctuate much more sharply than the costs. Because of the character of Canadian resources and the nature of Canadian trade and other financial relations with the United Kingdom and the United States, fluctuations in gross income and, consequently, even more in net income reach relatively huge proportions at either extreme of the business cycle.

Subsection 2.—Review of Canadian Trade Since Confederation

Since 1867 when the provinces of Canada were federated, two countries, the United States and the United Kingdom, have played a dominant role in Canadian trade. Trade with the United Kingdom was a normal outgrowth of the mother country-colony relationship that existed prior to Confederation. The United Kingdom had supplied the original Canadian provinces with the bulk of their requirements and British goods continued to hold first place in the markets of the new Dominion for some years. Throughout the period the reverse flow of Canadian exports to the United Kingdom consisted mainly of lumber, cattle, cheese, furs and fish with the volume of trade showing a slow but gradual increase over the period 1868-90.

In the latter part of the nineteenth century radical changes began to appear in the direction and composition of Canadian trade. In 1883, the rapidly expanding republic to the south replaced the United Kingdom as the principal source of Canadian imports, and by 1896 over one-half of Canadian imports were of United States origin. Since that time United States dominance in the Canadian market has been maintained.

While the United Kingdom share of Canadian import trade was diminishing, its purchase of Canadian goods rapidly increased. Between 1886 and 1896 Canadian exports to United Kingdom nearly doubled, and in another ten years had doubled again. The increase was due largely to wheat, the production of which had become, by 1906, the major Canadian export industry. The percentage of exports flowing to the United States remained relatively constant, increasing roughly in proportion to the general increase in Canadian export trade.

The importance of these two countries in Canadian trade is indicated in Table 6 at p. 889, which provides data of imports and exports for representative years from 1886 to the present time.

Commodity Trade.—Before the War of 1914-18, Canadian export trade consisted almost entirely of lumber, fish, furs and agricultural and mineral products. The growth of the wheat industry at the beginning of this century was the greatest single dynamic during that period. Between 1896 and 1914, total Canadian exports jumped from $110,000,000 to over $431,000,000, with the value of 1914 wheat and flour exports in the neighbourhood of $140,000,000.

Imports during that period showed an even greater rate of expansion. In the decade immediately preceding the War, the requirements of a growing industrial organization and the rapid settlement of the West led to large increases in the imports of iron and steel products, machinery and coal, in addition to the consumer goods requirements of an expanding and relatively prosperous economy. The rapid increase in import volume was complemented by an inflow of capital, principally from the United Kingdom.

The War of 1914-18 spurred the already rapidly growing manufacturing industries and, for the first time, iron and steel products and other types of manufactured goods began to appear in volume in the list of exports. These manufactured goods consisted principally of ammunition and similar less complex types of war materials. Following the War, however, the proportion of manufactured goods subsided slightly and in 1920 the eight leading exports, with their aggregate value exceeding 50 p.c. of total exports were the products of primary industry—wheat, meat, flour, planks and boards, newsprint, cattle, wood-pulp and fish.

In the twenty-year period between the two wars, primary products continued to dominate Canadian export trade. There was a definite trend towards an increased manufacturing content in the commodities exported, but manufacturing generally took the form of the further processing of raw materials, rather than a gradual development of a separate and integrated manufacturing industry such as has occurred in the United States. One of the best examples is the pulp and paper industry, where the chief product can be exported in three forms: pulpwood, the basic raw material; wood-pulp, an intermediate stage; and the finished product, newsprint (although wood-pulp and pulpwood may have other uses). In 1910, the relative proportions of these three stages of the product were 44, 37 and 19, respectively. In 1920 the proportions had changed to 8, 40, and 52 and in 1930 to 7, 21 and 72. By 1939, newsprint formed 73 p.c. of the combined total.

Reference should also be made to the growth of the Canadian mining industry in the years immediately after the War of 1914-18. The fall in prices materially reduced the cost of operating gold mines and this industry expanded rapidly. By 1941 gold production exceeded $200,000,000 in value, although it declined subsequently by nearly 50 p.c. due to the impact of the War of 1939-45. (Gold has been excluded from trade figures because of the difficulty of distinguishing between exports of new gold and exports of monetary gold used in settling international capital obligations.) The production of base metals—nickel, copper, zinc and lead—showed a similar rapid growth, and exports of these products in 1946 exceeded in total the value of gold production.

The following statement shows the relative proportions of exports in each of the stages of manufacture for representative years. The distinction between the three stages is somewhat arbitrary, and in assessing the charge it is well to keep in mind that the fully manufactured group, at least before 1939, consisted in large part of processed raw materials such as flour, canned meat and newsprint.

III.—PERCENTAGES OF RAW, PARTIALLY AND FULLY MANUFACTURED GOODS EXPORTED FROM CANADA, SIGNIFICANT YEARS, 1900-45

Year	Raw Materials	Partially Manufactured	Fully Manufactured	Year	Raw Materials	Partially Manufactured	Fully Manufactured
	p.c.	p.c.	p.c.		p.c.	p.c.	p.c.
1900	41·5	17·7	40·8	1933	42·7	14·2	43·1
1910	51·2	16·1	32·7	1937	38·2	22·5	39·3
1914	63·2	10·1	26·7	1939	27·8	26·6	45·6
1926	46·1	14·7	39·2	1945	26·7	16·6	56·7
1929	48·0	14·5	37·5				

The structure of Canadian import trade according to the stage of production has remained surprisingly stable since the beginning of this century. Fully manufactured goods formed between 60 and 70 p.c. of total imports, with raw materials approximately 25 p.c. The type of commodities imported showed a similar stability. Coal, farm and other machinery and heavy iron and steel products, and consumer goods in partly finished or fully manufactured form such as alcoholic beverages, raw cotton and textiles, wool and fabrics, sugar, rubber, vegetable oils, tea and coffee formed the principal items. One new factor that did exert a significant influence on the commodity structure was the development of the automobile; by 1930 automobiles and parts and crude and refined petroleum made up 11 p.c. of total imports.

During the 1919-39 period, the unsettled world economic conditions produced violent swings in Canadian foreign trade. With the great dependence of Canada upon exports as a market for surplus domestic production, and upon imports as a source of many essential commodities, it was not surprising to find the internal level of prosperity in Canada reacting to fluctuations in economic conditions in other countries. The close relationship between foreign trade and domestic prosperity was demonstrated in the great depression of the early 1930's. An early storm signal to Canada was the deficit on commodity account in 1929, the first since 1920. The deficit was caused by a decline in exports and a prosperity-generated increase in the volume of imports. In the next four years the fall in exports was rapid, and it was not until 1932 that the lagging imports caught up. The catastrophic nature of the drop can be seen from the following figures:—

Year	*Imports*	*Domestic Exports*	*Year*	*Imports*	*Domestic Exports*
	$'000,000	$'000,000		$'000,000	$'000,000
1927.........	1,087	1,211	1931........	628	587
1928.........	1,222	1,339	1932........	452	490
1929.........	1,299	1,152	1933........	401	529
1930.........	1,008	864	1934........	513	649

These figures show how rapidly the disease of world depression can be transmitted to a country greatly dependent on export trade and, in turn, spread from that country through a falling-off in the effective demand for imports.

Trade during the latter 1930's improved gradually but not until the War of 1939-45 did it approach the level of the boom years 1928 and 1929.

Price-level changes affect the picture to a degree. Prices declined from Confederation to the 1890's, but from then on rose gradually, although the level in 1914 was lower than in 1868. Between 1914 and 1920 the price level rose by 150 p.c., suggesting that the increase in trade volume was not nearly so great as indicated by the value figures. Wartime price changes must be used with caution, however, as some of the chief components of shipments overseas were goods neither produced nor exported prior to the War. After 1920 prices declined steadily until 1928, when the level was approximately 50 p.c. higher than 1913. The depression precipitated a rapid decline until, by 1933, prices were back at the 1913 level. Prices rose again following the depression, and in 1938 stood about 25 p.c. higher than in 1913. During the War of 1939-45 price increases were held back, and by 1944 stood only about one-third above the level in 1938.

Impact of the War of 1939-45.—The War of 1939-45 provided a stimulus to Canadian exports similar to that experienced in the War of 1914-18. With Canadian farms and factories working at maximum capacity to supply the demands of Allied Nations, the value of exports by 1944 was nearly four times as great as in 1938. Imports more than doubled in the same period. Table 8 at p. 891 gives the leading imports into Canada for the years 1939, 1945 and 1946. The commodities are arranged by order of importance in 1946 and the table shows the changing significance of these major imports during the period.

The most significant difference in the impact of the two wars on trade was the condition of Canadian industrial development at the beginning of each. In 1914, the iron and steel and manufacturing industries in Canada were still in an embryonic state and the Canadian contribution to the Allied effort consisted mainly of food, forest and mineral products. By 1939, heavy industry had become well established and the transition to war production was accomplished with less difficulty. Although primary products still dominated the list of exports, military vehicles, guns, ammunition, tanks and aeroplanes formed a significant portion of the total. The following statement lists the important groups over the wartime period. The munitions group includes only those items that can be definitely earmarked as such. It excludes direct shipments to the Canadian Armed Forces overseas, although quantities of supplies exported to the United Kingdom were later transferred to the Canadian troops under a pooling arrangement.

IV.—EXPORTS BY IMPORTANT WARTIME GROUPS, 1939–45

Item	1939	1940	1941	1942	1943	1944	1945
	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Wheat and flour	125·4	145·9	206·7	167·6	300·7	474·2	573·6
Bacon	32·7	58·8	77·5	100·6	116·1	148·3	96·5
Other agricultural and animal products	193·8	178·3	203·3	246·2	356·5	491·7	547·4
Wood, wood products and paper	242·5	348·0	387·1	389·8	391·1	440·9	488·0
Non-ferrous metals	182·9	194·7	244·0	308·9	332·7	339·9	352·5
Munitions and war supplies[1]	13·3	84·2	182·5	804·8	1,115·7	1,158·4	753·7
TOTALS, DOMESTIC EXPORTS[2]	924·9	1,179·0	1,621·0	2,363·8	2,971·5	3,440·0	3·218·3

[1] Includes motor-vehicles and parts, military wheeled vehicles, tanks, guns, aircraft, cartridges, shells, explosives and Canadian Navy, Army and Air Force stores. [2] Includes other items not specified.

One of the most interesting features of the growth in wartime exports was that it was accomplished with relatively little fall, if any, in the domestic standard of living. A large part of the costs of the War were met out of an expanding gross national product which increased from $5,495,000,000 in 1939 to a peak of $11,771,000,000 in 1944. The wartime volume of trade also showed the potential export capacity of the country, given a system where lack of purchasing power is not a bar to the movement of goods between countries. Various devices were used to enable the continuation of necessary exports to Allied countries unable to make payment. Early in the War the surplus of exports to the United Kingdom, which at that time was receiving upwards of 35 p.c. of Canada's total exports, was financed by the accumulation of sterling and by the repatriation of British investment in Canada. In 1942, the accumulated sterling balances were converted into a loan of $700,000,000, and balance of the Sterling Area deficiency was covered by the gift of $1,000,000,000 to the United Kingdom to meet obligations arising out of their purchase of food and munitions in Canada. From 1943 to the end of the War, shipments to the United Kingdom and other Allied countries requiring assistance were financed by Mutual Aid, the Canadian equivalent of lend-lease.

Table 9 at p. 891 gives the leading exports into Canada for the years 1939, 1945 and 1946. The commodities are arranged by order of importance in 1946 and the table shows the changing significance of these major exports during the period.

The War had somewhat less of a dynamic effect on the volume and structure of imports than it did on exports. A rapid increase was shown in 1940 to 1942 as Canadian factories tooled up for war production. By 1942 wartime imports were valued at more than twice the 1938 level, although the peak was not reached until 1944.

Throughout the War an increasingly larger proportion of Canadian imports came from the United States. For many years the United States had been the principal source of Canadian imports, and wartime factors combined to enhance its already strong position. The industrial segment of economy in particular leaned heavily on United States goods, and imports of iron and steel machinery, heavy capital equipment, producers materials for war equipment, coal and petroleum reached unprecedented levels. With rising incomes in Canada, consumer goods imports also showed gains, and the elimination of some of the normal sources cut off by the War increased the already strong demand for these products. Table 2 shows the increased percentage of goods imported from the United States during the War. Allowance should be made for the fact that some goods from other foreign countries were routed through United States ports to avoid the dangers of the longer sea route to Canada, and were attributed to the United States in the trade figures.

Subsection 3.—Recent Developments in Foreign Trade

By 1946, post-war trends in Canadian trade had begun to emerge. The volume of exports held up well and was, in fact, only 20 p.c. below the wartime peak in 1944. Canadian products continued high in world demand to alleviate the urgent needs of areas devastated during the War, with food products, approximately 37 p.c. of total exports, the greatest single group in importance. Exports of forest products, at 27 p.c. of the total and base metals, at 10 p.c., illustrate the continuing importance of primary products in Canadian export trade.

In spite of the almost unlimited foreign demand for Canadian goods, that demand in many instances has not been backed by effective purchasing power. The need for maintaining a high level of employment in the great export industries which form the backbone of the Canadian economy, in addition to the humanitarian reasons for supplying countries ravaged by the War, has resulted in Government action to bridge this gap between Canadian capacity to produce and foreign demand. A series of loans and credits, with the United Kingdom the principal beneficiary, have underwritten a substantial portion of the exports.

The two countries which have dominated Canadian trade since exports and imports for the Dominion were first recorded maintained that position in 1946. Thirty-eight p.c. of Canadian exports went to the United States and 26 p.c. to the United Kingdom. One-half of purchases by the United States were forest products, with one item, newsprint, making up over one-quarter of the total exports to that country. Two-thirds of United Kingdom purchases were foodstuffs, one-half of which were wheat and flour. The balance of Canadian export trade can be divided into three main groups: countries whose trade balances with Canada were financed by loans or UNRRA contributions, British Empire countries in whose market Canada has a tariff preference, and Latin American countries.

Countries whose imports from Canada were financed chiefly by loans or UNRRA donations received a wide variety of Canadian goods, although the emphasis was on food products and on vehicles and ships for the rehabilitation of destroyed transport systems. The principal countries in this group are shown below, with the main items exported to each in 1946.

Country	*Value*	*Item*
	$'000,000	
France	74·4	Trucks and parts, ships, wheat, canned meat, copper, nickel, zinc.
Belgium	63·6	Railway locomotives and cars, wheat.
China	42·9	Trucks, wheat and flour, ships, donations, gifts.
Netherlands	33·9	Trucks, woollen clothing, wheat, oats.
Poland	22·5	Canned meats, horses, oats, donations, fish, flour.
Italy	20·4	Wheat, oats, flour, canned meats, fish, donations, automobile parts.
Norway	19·3	Wheat, flour, nickel, ships.

Canadian exports to the British Commonwealth, other than the United Kingdom, exceeded $307,000,000 in 1946. Wheat, railway locomotives and cars, automobiles and parts, and lumber predominated, although the list of exports to these countries showed wide diversification. Principal exports to leading countries are as follows:—

Country	*Value*	*Item*
	$'000,000	
South Africa	68·6	Planks and boards, wheat, automobile parts, railway cars.
British West Indies	49·2	Flour, miscellaneous food, clothing and manufactured goods.
India	49·1	Wheat, locomotives and railway cars.
Australia	38·2	Automobiles and parts, newsprint, planks and boards, cotton fabrics.
Newfoundland	38·2	Flour, coal, gasoline, clothing, boots and shoes.

A very large increase in the value of exports to Latin America is indicated by the 1946 export figures. Exports to the twenty countries in this group comprised both primary and manufactured goods. The four leading countries, with principal commodities exported, are as follows:—

Country	*Value*	*Item*
	$'000,000	
Brazil	24·6	Flour, newsprint, sewing machines, ships, lead.
Argentina	14·0	Newsprint, crude rubber, planks and boards, sewing machines, agricultural machinery.
Venezuela	11·1	Trucks, flour, rubber tires, newsprint.
Mexico	10·5	Newsprint, machinery, leather, agricultural machinery, fountain pens.

The volume of Canadian imports has always been closely related to the level of national income and domestic prosperity. In 1946, with aggregate national income close to the wartime peak and with the enforced restraints of wartime largely eliminated, consumer spending reached a record height. The accumulated demand was reflected in the import figures, particularly in the field of consumer goods. The increased domestic sales of goods produced in Canada resulted in increased requirements for fuels, producers materials and capital equipment. Prosperity in the agricultural sector, in part due to the subsidizing of exports, increased the demand for imported farm machinery. The level of imports was apparently affected little by the price rise occurring throughout the year, with availability the prime consideration.

The total value of imports in 1946 approximated $1,900,000,000, with almost three-quarters of the total coming from the United States. In spite of the increased production for export in other countries, the United States appears to have a firmer grip on the Canadian market than it did before the War. The Canadian demand for United States goods is the result of a combination of factors. From the 1920's on, the Canadian preference for United States manufactured consumer goods, or for domestic goods on the United States pattern, has been steadily growing. This growing preference is not unnatural, in view of the increasing growth of United States branch plants in Canada and the exposure of Canadians to United States radio, magazines and national advertising campaigns. The United States position has been further enhanced by the proximity of its industries to Canadian consumers, a minimum of foreign exchange problems between the two countries, and the use of the same language and similar methods of business. The return of the Canadian dollar to parity with the United States dollar early in July, from a 10 p.c. discount position, served partially to offset the price increases and improved the relative position of United States goods on the Canadian market. The trend in the last three months of 1946 was particularly pronounced, as the value of imports from the United States in that quarter was more than four times as great as an average quarter in the five years 1935-39, and one-third larger than the average for the same period in the wartime years 1941-45. Exports to the United States have not kept pace and the commodity deficit on current account amounted, in 1946, to over $500,000,000. It is possible, however, that the import figures for 1946 may be inflated by abnormal inventory accumulation and capital formation deferred by the War.

Apart from the United States, the sources of Canadian imports may be divided into three principal geographic groups. The first of these is the United Kingdom, commercial imports from which were valued at $141,000,000 in 1946, an increase of 16 p.c. over 1945 and 14 p.c. over the 1935-39 average. Principal imports from the United Kingdom were woollen fabrics and yarns, cotton fabrics, tin and tableware.

The group, second in importance, comprised other countries of the Commonwealth; total imports from this source were 16 p.c. higher than in 1945. The principal countries, with the chief items of imports from each, are listed below:—

Country	*Value*	*Item*
	$'000,000	
India	27·9	Jute fabrics, tea, rugs.
Australia	19·8	Wool, raisins, rabbit skins.
British Guiana	12·2	Bauxite ore, sugar.
New Zealand	12·0	Wool, sausage casings.
Jamaica	10·5	Sugar, bananas, rum.

Imports from Latin America, at $125,600,000, were the third group in importance but showed by far the greatest increase of any of the groups. The 1946 total was 45 p.c. higher than the corresponding figure for 1945 and more than five times as great as the average for 1935-39. Principal countries, with commodities, are as follows:—

Country	*Value*	*Item*
	$'000,000	
Venezuela	26·9	Crude petroleum.
Honduras	15·6	Bananas.
Mexico	14·6	Raw cotton, vegetable fibres, tomatoes.
Argentina	14·4	Vegetable oils, corn.
Brazil	14·0	Coffee, raw cotton, wax.
Cuba	13·2	Sugar, fruit pulp, pineapples.
Colombia	9·7	Coffee, crude petroleum.

Section 3.—Statistics of Foreign Trade

In considering the figures in the following tables, reference should be made to the explanatory notes on trade statistics at pp. 867-871. It must be emphasized that gold imports and exports are excluded from all tables. Imports from the United Kingdom from 1939 to 1946 are distorted by the inclusion of large amounts of non-commercial items in the trade returns (see p. 869). United Kingdom figures can be viewed in a proper perspective only if these non-commercial items are excluded from the recorded import statistics.

Subsection 1.—Trade by Geographic Areas

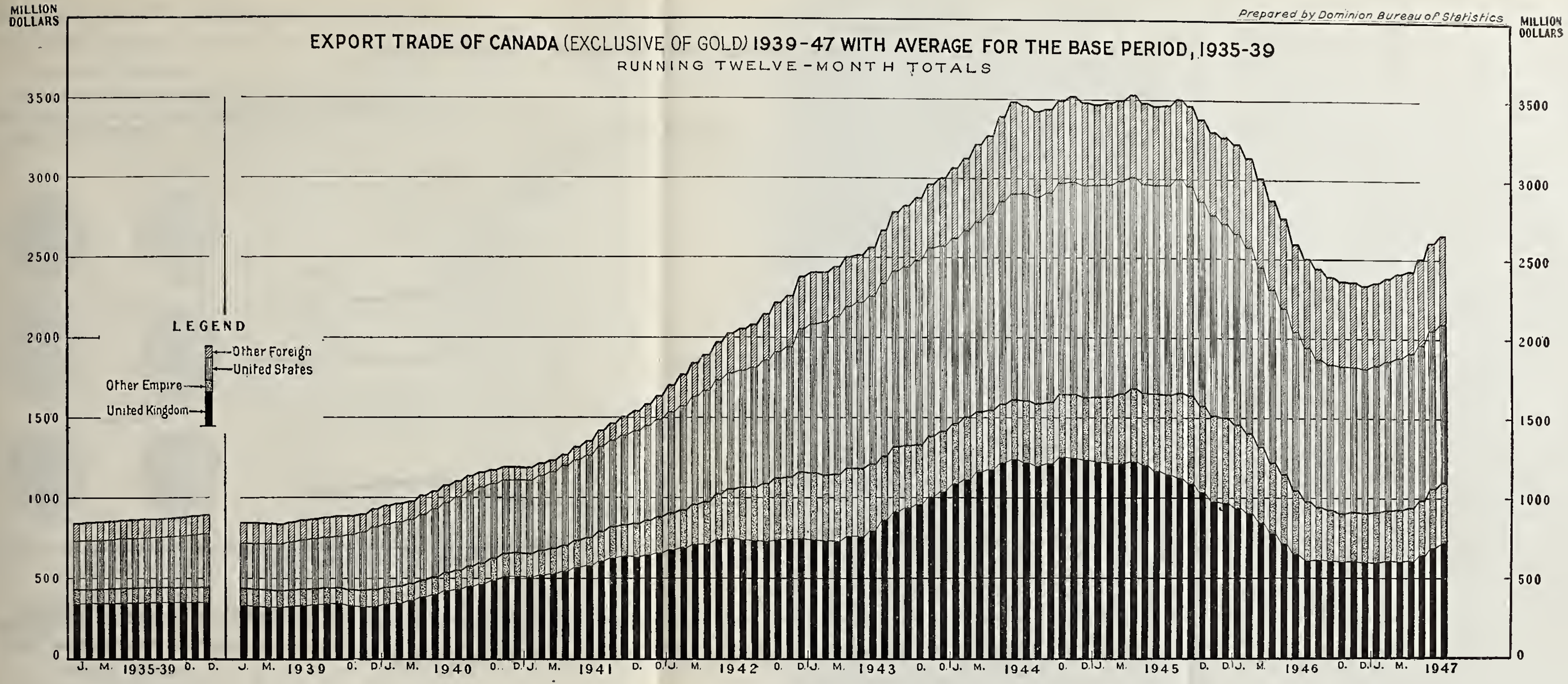
The tables in this Subsection provide information about Canada's foreign trade in total, by continents, and by countries with special reference in Tables **4** to **6** to the division between Empire and foreign countries.

1.—Trade of Canada (Excluding Gold) with All Countries, 1919-46

NOTE.—These figures are available on a calendar-year basis only since 1919; for figures for the fiscal years 1868-1919, see the Canada Year Book 1940, p. 526.

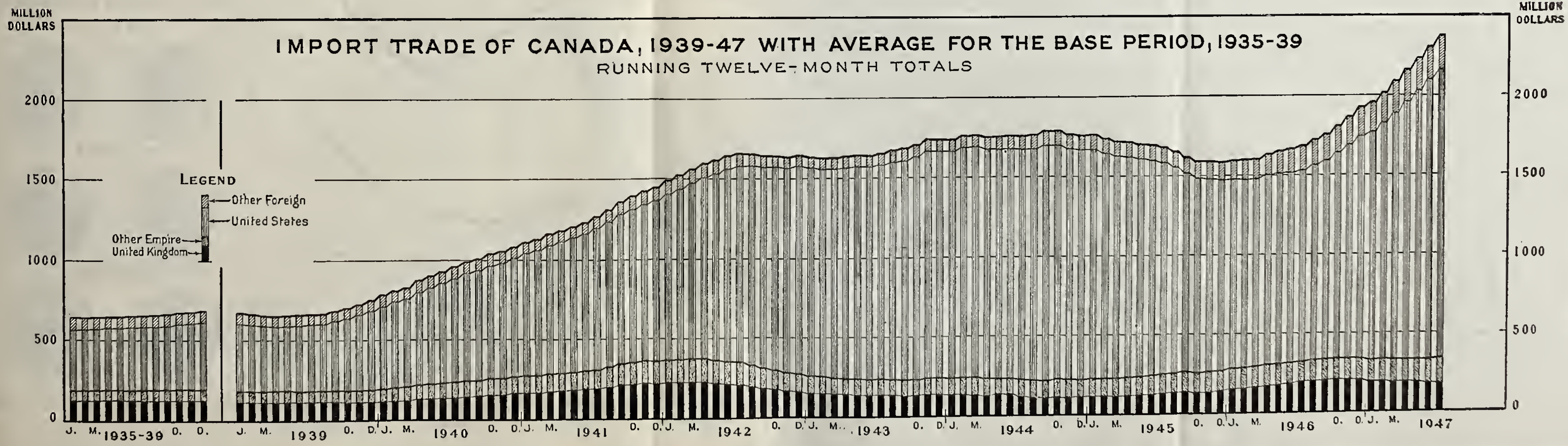
Year	Imports			Exports			Balance of Trade: Excess of Exports (+), Imports (−)
	Dutiable	Free	Total	Domestic Produce	Foreign Produce	Total	
	$	$	$	$	$	$	$
1919...	607,458,191	333,555,422	941,013,613	1,235,958,483	53,833,452	1,289,791,935	+348,778,322
1920...	890,847,353	446,073,668	1,336,921,021	1,268,014,533	30,147,672	1,298,162,205	− 38,758,816
1921...	546,863,395	252,615,088	799,478,483	800,149,296	13,994,461	814,143,757	+ 14,665,274
1922...	513,330,771	249,078,538	762,409,309	880,408,645	13,815,268	894,223,913	+131,814,604
1923...	594,098,589	308,931,926	903,030,515	1,002,401,467	13,584,849	1,015,986,316	+112,955,801
1924...	528,912,308	279,232,265	808,144,573	1,029,699,449	12,553,718	1,042,253,167	+234,108,594
1925...	561,061,127	329,132,221	890,193,348	1,239,554,207	12,111,941	1,251,666,148	+361,472,800
1926...	642,448,478	365,893,433	1,008,341,911	1,261,241,525	15,357,292	1,276,598,817	+268,256,906
1927...	696,253,024	390,864,906	1,087,117,930	1,210,596,998	20,445,231	1,231,042,229	+143,924,299
1928...	788,271,150	434,046,766	1,222,317,916	1,339,409,562	24,378,794	1,363,788,356	+141,470,440
1929...	849,114,653	449,878,039	1,298,992,692	1,152,416,330	25,926,117	1,178,342,447	−120,650,245
1930...	647,230,123	361,249,356	1,008,479,479	863,683,761	19,463,987	883,147,748	−125,331,731
1931...	416,179,513	211,918,873	628,098,386	587,653,440	11,907,020	599,560,460	− 28,537,926
1932...	288,425,260	164,188,997	452,614,257	489,883,112	8,030,485	497,913,597	+ 45,299,340
1933...	235,195,782	166,018,529	401,214,311	529,449,529	6,034,260	535,483,789	+134,269,478
1934...	295,566,101	217,903,396	513,469,497	649,314,236	6,991,992	656,306,228	+142,836,731
1935...	306,913,652	243,400,899	550,314,551	724,977,459	12,958,420	737,935,879	+187,621,328
1936...	350,903,936	284,286,908	635,190,844	937,824,933	12,684,319	950,509,252	+315,318,408
1937...	436,327,558	372,568,767	808,896,325	997,366,918	14,754,862	1,012,121,780	+203,225,455
1938...	379,095,355	298,355,999	677,451,354	837,583,917	11,100,216	848,684,133	+171,232,779
1939...	427,470,633	323,584,901	751,055,534	924,926,104	10,995,609	935,921,713	+184,866,179
1940...	582,934,898	499,015,821	1,081,950,719	1,178,954,420	14,263,172	1,193,217,592	+111,266,873
1941...	732,791,033	716,000,617	1,448,791,650	1,621,003,175	19,451,366	1,640,454,541	+191,662,891
1942...	715,018,745	929,223,188	1,644,241,933	2,363,773,296	21,692,750	2,385,466,046	+741,224,113
1943...	836,548,673	898,528,217	1,735,076,890	2,971,475,277	29,877,002	3,001,352,279	+1,266,275,389
1944...	884,751,584	874,146,613	1,758,898,197	3,439,953,165	43,145,447	3,483,098,612	+1,724,200,415
1945...	798,795,201	786,979,941	1,585,775,142	3,218,330,353	49,093,935	3,267,424,288	+1,681,649,146
1946...	1,078,943,972	848,335,430	1,927,279,402	2,312,215,301	26,950,546	2,339,165,847	+411,886,445

Prepared by Dominion Bureau of Statistics



EXPORT TRADE OF CANADA (EXCLUSIVE OF GOLD) 1939-47 WITH AVERAGE FOR THE BASE PERIOD, 1935-39

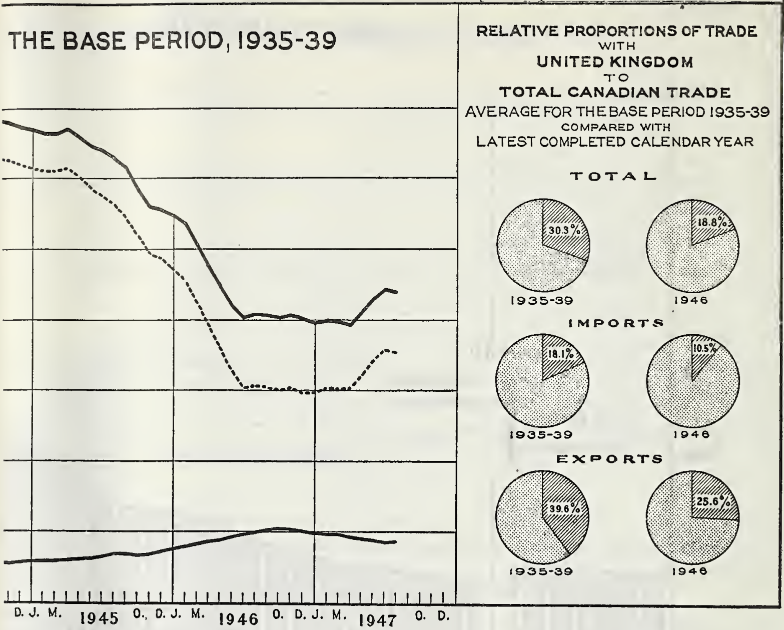
RUNNING TWELVE-MONTH TOTALS



IMPORT TRADE OF CANADA, 1939-47 WITH AVERAGE FOR THE BASE PERIOD, 1935-39

RUNNING TWELVE-MONTH TOTALS

Prepared by Dominion Bureau of Statistics



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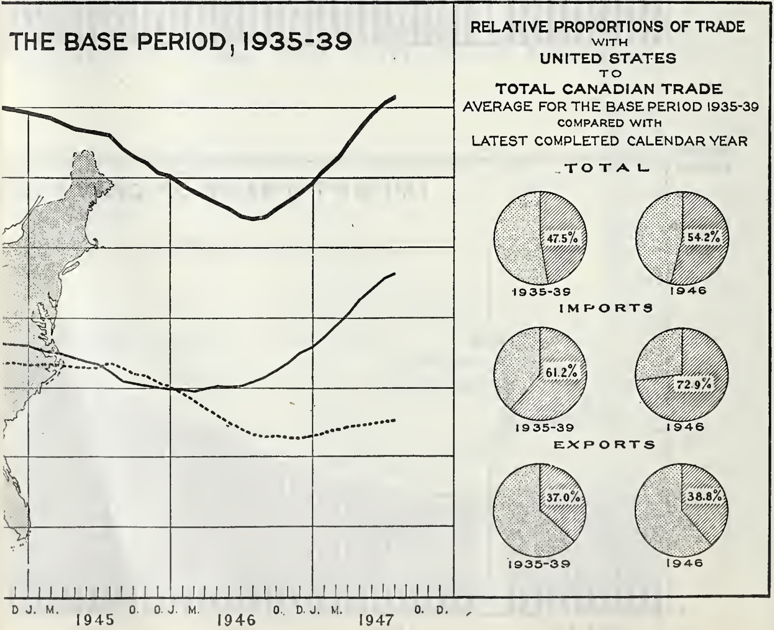

2.—Trade of Canada, by Continents, 1939, and 1944-46

NOTE.—The percentages for 1945 and 1946 are distorted somewhat by the inclusion in the import figures of Canadian military equipment returned from overseas.

Continent	1939		1944		1945		1946	
	$'000,000	p.c.	$'000,000	p.c.	$'000,000	p.c.	$'000,000	p.c.
Imports								
Europe—								
United Kingdom	114·0	15·2	110·6	6·3	140·5	8·9	201·4	10·4
Other Europe	37·1	4·9	9·3	0·5	18·6	1·2	39·7	2·1
North America—								
United States	496·9	66·1	1,447·2	82·3	1,202·4	75·8	1,405·3	72·9
Other North America	17·1	2·3	66·5	3·8	76·9	4·8	93·9	4·9
South America	21·1	2·8	54·8	3·1	56·7	3·6	79·6	4·1
Asia	38·1	5·1	32·9	1·9	40·4	2·5	47·9	2·5
Oceania	18·6	2·5	25·2	1·4	28·5	1·8	35·7	1·9
Africa	8·2	1·1	12·4	0·7	21·8	1·4	23·8	1·2
Totals, Imports	**751·1**	**100·0**	**1,758·9**	**100·0**	**1,585·8**	**100·0**	**1,927·3**	**100·0**
Exports (Domestic)								
Europe—								
United Kingdom	328·1	35·5	1,235·0	35·9	963·2	29·9	597·5	25·8
Other Europe	57·9	6·3	322·8	9·4	406·0	12·6	334·4	14·5
North America—								
United States	380·4	41·1	1,301·3	37·8	1,197·0	37·2	887·9	38·4
Other North America	28·7	3·1	107·7	3·1	108·6	3·4	122·6	5·3
South America	16·2	1·8	25·9	0·8	47·6	1·5	77·2	3·3
Asia	44·8	4·8	212·1	6·2	336·7	10·5	128·8	5·6
Oceania	46·1	5·0	58·1	1·7	55·6	1·7	57·6	2·5
Africa	22·7	2·4	177·0	5·1	103·6	3·2	106·2	4·6
Totals, Exports	**924·9**	**100·0**	**3,439·9**	**100·0**	**3,218·3**	**100·0**	**2,312·2**	**100·0**

3.—Trade of Canada, by Leading Countries, 1939, 1945 and 1946

NOTE.—Countries arranged in order of importance, 1946

Ranks			Country	1946	1945	1939
1939	1945	1946				
			Imports	$'000	$'000	$'000
1	1	1	United States	1,405,297	1,202,418	496,898
2	2	2	United Kingdom	201,433	140,517	114,007
5	3	3	British India	27,877	30,568	9,808
27	4	4	Venezuela	26,886	17,267	1,943
4	5	5	Australia	19,754	17,180	11,269
82	13	6	Honduras	15,573	8,017	17
41	7	7	Mexico	14,610	13,508	479
12	17	8	Argentina	14,372	7,333	4,406
29	15	9	Brazil	14,018	7,601	1,111
31	16	10	Cuba	13,228	7,512	889
7	9	11	British Guiana	12,187	9,338	6,891
14	10	12	New Zealand	11,956	9,276	4,266
19	14	13	Switzerland	11,149	7,863	3,459
13	11	14	Jamaica	10,484	9,273	4,357
10	8	15	Colombia	9,708	11,678	5,437
26	6	16	Newfoundland	9,268	16,600	1,955
15	12	17	British South Africa	7,892	8,433	3,991
83	19	18	San Domingo	7,127	6,201	16
3	—	19	Straits Settlements	5,871	Nil	13,145
16	21	20	Barbados	5,548	5,466	3,874
			Totals, Above 20 Countries	**1,844,238**	**1,536,049**	**688,218**
			Grand Totals, Imports	**1,927,279**	**1,585,775**	**751,056**

3.—Trade of Canada, by Leading Countries, 1939, 1945 and 1946—concluded

Ranks 1939	Ranks 1945	Ranks 1946	Country	1946	1945	1939
				$'000	$'000	$'000
			Exports (Domestic)			
1	1	1	United States	887,941	1,196,977	380,392
2	2	2	United Kingdom	597,506	963,238	328,099
12	5	3	France	74,380	76,917	6,973
5	12	4	British South Africa	68,633	31,593	17,965
11	10	5	Belgium	63,626	34,618	7,261
13	3	6	British India	49,046	307,461	5,166
22	29	7	China	42,915	6,573	2,636
8	7	8	Newfoundland	38,229	40,515	8,506
3	11	9	Australia	38,194	32,226	32,029
10	8	10	Netherlands	33,883	39,970	7,357
14	16	11	Brazil	24,602	16,748	4,407
37	22	12	Poland	22,501	9,249	1,280
23	4	13	Italy	20,387	89,470	2,231
7	26	14	Norway	19,267	7,842	10,904
17	17	15	Trinidad and Tobago	19,140	16,433	4,211
51	6	16	Russia (U.S.S.R.)	17,705	58,820	275
6	14	17	New Zealand	16,110	19,102	11,954
15	18	18	Jamaica	15,500	14,404	4,313
48	9	19	Egypt	15,086	36,417	369
18	31	20	Argentina	14,039	6,003	4,117
			Totals, Above 20 Countries	**2,078,690**	**3,004,576**	**840,445**
			Grand Totals, Exports	**2,312,215**	**3,218,330**	**924,926**

4.—Total Imports, by Countries, 1940-46, with Averages, 1935-39

Country	Thousands of Dollars							
	Average 1935-39	1940	1941	1942	1943	1944	1945	1946
British Empire								
United Kingdom	124,047	161,216	219,419	161,113	134,965	110,599	140,517	201,433
Eire	69	372	157	70	2	3	9	53
Aden	4	1	3	24	2	3	2	Nil
Africa—								
British East	2,683	1,739	2,115	3,477	1,174	1,081	1,539	3,603
British South	4,210	3,443	4,182	4,732	3,770	5,551	8,433	7,892
Southern Rhodesia	316	140	494	301	1,146	356	542	93
British West—								
Gold Coast	701	1,004	2,157	2,653	1,713	1,758	6,367	5,381
Nigeria	370	79	723	579	951	2,402	3,422	4,772
Sierra Leone	7	5	2	3	[2]	Nil	9	Nil
Other	[2]	Nil	Nil	Nil	Nil	"	Nil	"
Bermuda	102	61	90	209	27	490	94	122
British East Indies—								
British India	8,531	16,042	17,867	21,346	17,091	27,878	30,568	27,877
Burma	165	570	281	67	Nil	Nil	Nil	1
Ceylon	4,015	4,641	6,064	6,784	5,605	4,262	5,682	3,745
Straits Settlements	11,154	27,076	38,737	14,651	8[1]	Nil	Nil	5,871
Other	79	167	141	30	Nil	"	"	Nil
British Guiana	5,846	8,965	8,429	6,091	8,255	7,225	9,338	12,187
British Honduras	87	188	342	272	428	456	450	1,221
British Sudan	25	26	31	68	19	34	67	53
British West Indies—								
Barbados	3,261	3,582	3,948	700	5,115	8,207	5,466	5,548
Jamaica	5,160	4,178	6,782	5,572	9,350	12,624	9,273	10,484
Trinidad and Tobago	2,387	3,111	3,899	2,009	758	979	3,101	4,137
Other	1,816	1,413	2,184	714	1,044	1,147	857	788
Falkland Islands	[2]	Nil	Nil	273	1,041	244	424	Nil
Gibraltar	[2]	"	"	[2]	Nil	Nil	Nil	"
Hong Kong	842	862	916	410[1]	1[1]	"	"	163
Malta	2	6	Nil	32	10	3	21	56
Newfoundland	2,188	3,075	4,273	5,116	7,176	9,306	16,600	9,268

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[1] Ex-bond. [2] Less than $500.

4.—Total Imports, by Countries, 1940-46, with Averages, 1935-39—continued

Country	Thousands of Dollars							
	Average 1935-39	1940	1941	1942	1943	1944	1945	1946
British Empire—concl.								
Oceania—								
Australia	9,728	16,571	19,235	12,889	11,453	12,540	17,180	19,754
Fiji	2,341	3,100	3,849	3,091	2,301	3,628	1,607	3,123
New Zealand	4,754	5,738	13,552	19,892	24,776	8,744	9,276	11,956
Other British Oceania	3	Nil	Nil	282	6	229	409	420
Palestine	68	12	70	327	444	605	415	500
Totals, British Empire	**194,961**	**267,383**	**359,942**	**273,777**	**238,631**	**220,354**	**271,668**	**340,501**
Foreign Countries								
Abyssinia	5	[2]	Nil	Nil	Nil	Nil	2	1
Albania	1	Nil	“	“	“	“	Nil	Nil
Afghanistan	1	“	“	7	1	58	2,079	1,587
Argentina	5,374	6,542	4,764	9,739	10,199	9,564	7,333	14,372
Austria	245	Nil	Nil	Nil	Nil	Nil	Nil	Nil
Belgium	6,328	3,393	76	6	1	“	380	4,429
Belgian Congo	5	3	306	504	1,736	792	333	664
Bolivia	26	34	10	26	Nil	14	25	32
Brazil	920	6,243	19,444	11,166	4,800	7,224	7,601	14,018
Bulgaria	4	4	[2]	Nil	Nil	Nil	Nil	Nil
Chile	125	175	233	792	596	723	562	424
China	3,344	4,524	2,549	117	21	2	[2]	2,321
Colombia	5,139	9,851	12,912	1,997	5,021	13,782	11,678	9,708
Costa Rica	77	113	546	1,493	1,529	1,361	594	1,546
Cuba	615	1,431	4,330	5,913	8,552	4,229	7,512	13,228
Czechoslovakia	1,979	Nil	Nil	Nil	Nil	Nil	Nil	964
Denmark	165	68	4	[2]	“	“	6	157
Greenland	311	1,415	477	1,471	1,254	128	271	271
Ecuador	41	26	170	48	260	566	1,964	157
Egypt	728	981	2,658	1,061	57	179	213	252
Estonia	23	1	Nil	Nil	Nil	Nil	Nil	Nil
Finland	70	12	[2]	[2]	“	“	“	23
France	6,382	4,699	335	21	6	9	273	4,610
French Africa	61	31	3	Nil	76	32	308	353
French East Indies	126	44	8	“	Nil	4	Nil	Nil
French Guiana	1	Nil	Nil	“	“	Nil	“	[2]
French Oceania	3	4	177	47	216	8	44	22
French West Indies	1	6	Nil	2	Nil	87	94	3
Madagascar	31	6	“	70	52	80	119	123
St. Pierre and Miquelon	26	8	9	17	24	13	11	7
Germany	10,364	349[1]	11[1]	2[1]	Nil	Nil	2	11
Greece	47	120	29	13	1	“	2	64
Guatemala	67	59	608	1,098	1,070	2,693	1,779	2,928
Haiti	63	227	331	221	686	2,097	514	778
Honduras	49	46	78	168	193	1,349	8,017	15,573
Hungary	130	97	Nil	Nil	Nil	Nil	Nil	Nil
Iceland	3	26	64	102	1	24	31	9
Iraq (Mesopotamia)	357	515	254	18	Nil	Nil	974	1,489
Italy	2,403	1,343	44[1]	1[1]	3	[2]	1	2,704
Tripoli	[2]	[2]	Nil	Nil	Nil	Nil	Nil	Nil
Italian Africa, other	[2]	Nil	“	“	“	“	1	4
Japan	4,649	5,887	2,338	1,045[1]	7[1]	“	Nil	3
Korea	1	Nil	[2]	Nil	Nil	“	“	Nil
Latvia	11	16	Nil	1	“	“	“	“
Liberia	14	Nil	1	1	“	8	12	60
Lithuania	4	“	Nil	Nil	“	Nil	Nil	Nil
Mexico	667	734	1,896	4,970	12,503	13,119	13,508	14,610
Morocco	32	40	Nil	Nil	Nil	Nil	111	18
Netherlands	3,984	1,170	135	36	47[1]	51	401	2,497
Netherlands East Indies	800	1,811	4,596	1,141	123[1]	22	18	57
Netherlands Guiana	[2]	78	636	1,920	6,998	1,109	Nil	59
Netherlands West Indies	150	852	912	877	976	508	830	3,186
Nicaragua	[2]	2	1	10	218	1	1	29
Norway	742	268	3	Nil	Nil	Nil	641	836
Panama	32	23	388	156	78	6	34	38
Paraguay	62	64	106	559	560	208	241	264

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[1] Ex-bond. [2] Less than $500.

4.—Total Imports, by Countries, 1940-46, with Averages, 1935-39—concluded

Country	Thousands of Dollars							
	Average 1935-39	1940	1941	1942	1943	1944	1945	1946
Foreign Countries—concl.								
Persia (Iran)	126	84	176	71	10	27	406	274
Peru	3,554	712	2,833	936	692	95	149	847
Poland	185	4	[2]	[2]	Nil	Nil	Nil	1
Portugal	265	581	570	450	557	1,308	1,658	2,188
Azores and Madeira	157	207	155	105	89	47	63	241
Portuguese Africa	15	51	188	356	91	128	306	510
Portuguese Asia	1	[2]	Nil	Nil	Nil	Nil	Nil	Nil
Roumania	96	11	Nil	Nil	Nil	Nil	Nil	1
Russia (U.S.S.R.)	341	99	78	[2]	2	16	1,747	1,519
Salvador	19	44	431	794	1,208	2,561	1,502	2,428
San Domingo (Dominican Republic)	4	3,792	4,832	612	169	4,962	6,201	7,127
Spain	989	1,111	520	406	908	3,024	4,353	4,484
Canary Islands	10	12	6	1	Nil	Nil	Nil	Nil
Spanish Africa	Nil	Nil	Nil	Nil	"	"	"	[2]
Sweden	2,044	1,587	670	79	2	24	1,093	3,681
Switzerland	3,110	3,547	4,004	3,898	3,752	4,766	7.863	11,149
Syria	6	3	8	6	15	30	19	71
Thailand (Siam)	84	57	30	3	Nil	Nil	Nil	12
Turkey	293	175	42	40	14	2	277	1,880
United States	418,738	744,231	1,004,498	1,304,680	1,423,672	1,447,226	1,202,418	1,405,297
Alaska	93	143	285	462	825	136	113	389
American Virgin Islands	[2]	Nil	Nil	Nil	Nil	Nil	Nil	32
Guam	[2]	"	"	"	"	"	"	50
Hawaii	186	389	83	4	3	1	6	346
Philippine Islands	563	691	761	106	Nil	Nil	[2]	2,058
Puerto Rico	13	85	1	24	17	67	51	198
Uruguay	180	431	688	1,322	551	248	95	618
Venezuela	1,662	3,118	6,527	9,274	6,004	13,826	17,267	26,886
Yugoslavia	99	62	22	Nil	Nil	Nil	Nil	2
Totals, Foreign Countries	**489,621**	**814,568**	**1,088,856**	**1,370,465**	**1,496,446**	**1,538,544**	**1,314,107**	**1,586,778**
Grand Totals	**684,582**	**1,081,951**	**1,448,792**	**1,644,242**	**1,735,077**	**1,758,898**	**1,585,775**	**1,927,279**

[2] Less than $500.

5.—Domestic Exports, by Countries, 1940-46, with Averages, 1935-39

Country	Thousands of Dollars							
	Average 1935-39	1940	1941	1942	1943	1944	1945	1946
British Empire								
United Kingdom	353,741	508,096	658,228	741,717	1,032,647	1,235,030	963,238	597,506
Eire	3,861	5,776	1,932	4,816	4,985	11,971	14,278	7,956
Aden	109	102	84	50	79	127	156	256
Africa—								
British East	789	4,790	3,898	5,067	18,707	6,209	3,787	2,220
British South	15,457	37,874	36,095	27,543	35,611	23,597	31,593	68,633
Southern Rhodesia	970	1,865	3,042	1,247	1,386	1,187	2,008	3,284
British West—								
Gambia	35	14	68	414	553	73	33	63
Gold Coast	270	330	722	984	2,062	683	890	871
Nigeria	145	103	348	1,147	3,565	912	318	1,021
Sierra Leone	203	155	483	1,851	1,434	852	376	410
Other	[1]	Nil	[1]	Nil	Nil	Nil	[1]	Nil
Bermuda	1,381	1,567	2,903	2,802	2,011	2,472	2,511	3,805
British East Indies—								
British India	3,732	11,242	38,037	167,884	134,576	174,794	307,461	49,046
Burma	71	361	2,713	434	Nil	Nil	478	442
Ceylon	246	392	341	1,325	7,364	6,199	8,290	2,140
Straits Settlements	2,173	4,281	9,630	3,168	Nil	Nil	1,114	3,224
Other	5	8	5	Nil	"	"	2	51

[1] Less than $500.

5.—Domestic Exports, by Countries, 1940-46, with Averages, 1935-39—continued

Country	Thousands of Dollars							
	Average 1935-39	1940	1941	1942	1943	1944	1945	1946
British Empire—concl.								
British Guiana	1,344	2,579	5,543	6,132	5,740	5,738	6,418	7,109
British Honduras	255	318	279	163	227	532	884	1,110
British Sudan	109	99	39	128	224	47	94	510
British West Indies—								
Barbados	1,218	1,999	3,211	1,761	2,955	4,248	4,750	6,205
Jamaica	3,887	5,717	8,465	6,881	8,986	13,884	14,404	15,500
Trinidad and Tobago	3,372	7,423	15,152	14,756	13,706	16,474	16,433	19,140
Other	1,600	2,223	3,736	2,931	4,365	5,819	6,865	8,341
Falkland Islands	[1]	1	2	27	62	115	8	2
Gibraltar	9	8	[1]	6	18	395	586	333
Hong Kong	1,651	1,719	3,057	[1]	Nil	Nil	99	4,362
Malta	377	22	10	40	990	3,056	4,740	4,671
Newfoundland	8,048	12,640	31,874	50,832	43,473	47,950	40,515	38,229
Oceania—								
Australia	28,924	33,860	37,290	78,866	46,686	43,513	32,226	38,194
Fiji	387	338	433	324	297	461	261	375
New Zealand	12,799	9,786	9,981	30,336	28,114	11,916	19,102	16,110
Other British Oceania	25	3	2	5	22	28	64	20
Palestine	251	266	1,038	180	816	2,169	2,866	3,562
Totals, British Empire	**447,444**	**655,957**	**878,641**	**1,153,817**	**1,401,661**	**1,620,451**	**1,486,848**	**904,701**
Foreign Countries								
Abyssinia	[1]	Nil	[1]	Nil	[1]	4	7	30
Afghanistan	[1]	3	Nil	"	Nil	Nil	6	1
Albania	3	Nil	"	"	"	"	497	122
Argentina	4,696	6,107	7,172	4,165	3,677	3,645	6,003	14,039
Austria	27	Nil	Nil	Nil	Nil	Nil	[1]	3,679
Belgium	13,204	1,290	"	"	"	1	34,618	63,626
Belgian Congo	89	153	683	2,612	2,781	1,225	945	1,201
Bolivia	113	237	430	261	198	206	319	529
Brazil	4,012	5,063	8,097	3,738	4,964	7,324	16,748	24,602
Bulgaria	10	70	Nil	Nil	Nil	Nil	Nil	9
Chile	848	1,436	1,788	1,059	1,028	1,649	2,562	3,565
China	3,808	2,503	6,599	7,803	[1]	14,901	6,573	42,915
Colombia	1,296	1,438	1,792	1,215	1,338	2,215	5,011	8,930
Costa Rica	103	211	290	218	174	314	521	873
Cuba	1,418	1,859	2,529	2,117	2,416	3,725	4,535	5,270
Czechoslovakia	881	Nil	Nil	Nil	Nil	Nil	6,717	9,871
Denmark	1,438	117	"	"	"	"	109	1,527
Greenland	Nil	34	281	414	336	49	888	234
Ecuador	93	131	162	250	215	301	360	801
Egypt	399	8,396	79,195	213,128	188,664	108,290	36,417	15,086
Estonia	5	11	Nil	Nil	Nil	Nil	Nil	Nil
Finland	539	89	83	"	"	"	[1]	507
France	8,566	11,924	Nil	"	"	15,865	76,917	74,380
French Africa	248	45	159	612	71,311	32,163	16,908	8,945
French East Indies	85	44	6	Nil	Nil	Nil	[1]	269
French Guiana	36	39	31	63	66	29	50	180
French Oceania	80	25	24	140	24	178	143	121
French West Indies	157	231	181	40	49	208	351	1,278
Madagascar	13	1	Nil	Nil	618	72	54	263
St. Pierre and Miquelon	309	278	374	585	542	580	737	784
Germany	9,639	Nil	Nil	Nil	Nil	Nil	2,724	6,867
Greece	1,142	1	176	2,423	6,150	8,574	25,563	9,739
Guatemala	117	204	249	243	242	349	424	928
Haiti	131	128	121	390	279	505	612	1,121
Honduras	159	128	276	242	123	114	188	624
Hungary	4	92	Nil	Nil	Nil	Nil	[1]	1,063
Iceland	28	548	1,836	2,708	2,164	2,654	3,681	3,123
Iraq (Mesopotamia)	55	99	1,175	20,159	22,067	5,747	3,494	3,231
Italy	2,785	943	Nil	Nil	8,815	160,118	89,470	20,387
Tripoli	[1]	Nil	"	"	Nil	Nil	19	Nil
Italian Africa, other	2	"	"	"	"	49	6	3

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[1] Less than $500.

5.—Domestic Exports, by Countries, 1940-46, with Averages, 1935-39—concluded

Country	Thousands of Dollars							
	Average 1935-39	1940	1941	1942	1943	1944	1945	1946
Foreign Countries—conc.								
Japan	21,880	11,367	1,502	Nil	Nil	Nil	Nil	1,027
Korea	3	[1]	[1]	"	"	"	"	126
Latvia	243	Nil	Nil	"	"	"	"	Nil
Liberia	17	20	14	12	18	19	84	67
Lithuania	196	6	Nil	Nil	Nil	Nil	Nil	[1]
Mexico	2,630	4,328	4,255	5,584	8,330	6,273	8,165	10,536
Morocco	711	38	29	5	7	1,282	9,192	1,169
Netherlands	10,062	1,396	Nil	Nil	Nil	[1]	39,970	33,883
Netherlands East Indies	801	1,533	3,652	548	"	Nil	856	6,833
Netherlands Guiana	49	71	140	128	133	195	174	476
Netherlands West Indies	176	223	424	3,474	484	329	799	1,399
Nicaragua	72	131	213	185	215	251	317	366
Norway	7,247	3,210	Nil	Nil	Nil	Nil	7,842	19,267
Panama	316	532	740	765	735	673	1,006	1,502
Paraguay	8	14	21	2	15	30	44	85
Persia (Iran)	118	33	39	124	446	1,005	1,816	431
Peru	1,072	1,527	1,942	1,026	767	1,339	3,957	3,080
Poland	805	Nil	Nil	Nil	Nil	Nil	9,249	22,501
Portugal	170	1,356	492	343	888	620	2,356	2,662
Azores and Madeira	8	102	2	1	Nil	69	21	71
Portuguese Africa	1,675	1,985	617	185	120	381	812	2,128
Portuguese Asia	1	1	2	Nil	Nil	1	4	76
Roumania	52	61	Nil	"	"	Nil	Nil	1
Russia (U.S.S.R.)	336	1	5,331	36,603	57,660	103,264	58,820	17,705
Salvador	69	194	252	196	155	275	386	454
San Domingo (Dominican Republic)	171	192	260	152	125	398	732	1,541
Spain	495	347	240	11	169	90	992	695
Canary Islands	17	1	[1]	Nil	45	Nil	49	333
Spanish Africa	9	2	Nil	"	5	1	Nil	Nil
Sweden	3,593	587	28	9	44	16	4,169	9,133
Switzerland	948	744	1,497	6,270	11,580	16,129	10,922	8,636
Syria	80	13	2	28	69	67	630	228
Thailand (Siam)	22	264	123	Nil	Nil	Nil	Nil	58
Turkey	388	1	17	412	14,452	7,064	710	1,618
United States	321,294	442,984	599,713	885.523	1,149,233	1,301,322	1,196,977	887,941
Alaska	154	134	231	246	89	278	223	276
American Virgin Islands	42	53	86	54	24	8	18	110
Guam	2	5	16	1	[1]	1	5	5
Hawaii	1,207	1,160	1,375	933	2,907	1,956	3,934	2,758
Philippine Islands	1,523	1,517	1,548	Nil	Nil	Nil	2,153	8,901
Puerto Rico	425	656	1,185	870	1,279	1,971	2,301	2,926
Uruguay	310	610	931	884	843	1,331	1,857	2,671
Venezuela	1,139	1,719	1,734	797	736	1,810	4,053	11,086
Yugoslavia	18	1	[1]	Nil	Nil	Nil	11,710	12,030
Totals, Foreign Countries	**437,092**	**522,997**	**742,362**	**1,209,956**	**1,569,814**	**1,819,502**	**1,731,482**	**1,407,514**
Grand Totals	**884,536**	**1,178,954**	**1,621,003**	**2,363,773**	**2,971,475**	**3,439,953**	**3,218,330**	**2,312,215**

[1] Less than $500.

6.—Trade with the British Empire and Foreign Countries, 1886-1946

Item and Year	Canadian Trade with—							
	United Kingdom		United States		Other British Empire		Other Foreign Countries	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	$'000'000		$'000'000		$'000'000		$'000'000	
Imports								
Ended Mar. 31—								
1886	39·0	40·7	42·8	44·6	2·4	2·5	11·8	12·2
1891	42·0	37·7	52·0	46·7	2·3	2·1	15·2	13·5
1896	32·8	31·2	53·5	50·8	2·4	2·2	16·6	15·8
1901	42·8	24·1	107·4	60·3	3·8	2·2	23·9	13·4
1906	69·2	24·4	169·3	59·6	14·6	5·1	30·7	10·9
1911	109·9	24·3	275·8	60·8	19·5	4·4	47·4	10·5
1916	77·4	15·2	370·9	73·0	27·8	5·5	32·1	6·3
1921	214·0	17·3	856·2	69·0	52·0	4·2	118·0	9·5
Ended Dec. 31—								
1926	164·7	16·3	668·7	66·3	49·9	5·0	125·0	12·4
1929	194·8	15·0	893·6	68·8	62·3	4·8	148·3	11·4
1930	162·6	16·1	653·7	64·8	65·2	6·5	127·0	12·6
1931	109·5	17·4	393·8	62·7	42·5	6·8	82·3	13·1
1932	93·5	20·7	263·5	58·2	34·5	7·6	61·0	13·5
1933	97·9	24·4	217·3	54·2	34·8	8·7	51·2	12·7
1934	113·4	22·1	293·8	57·2	43·7	8·5	62·6	12·2
1935	116·7	21·2	312·4	56·8	57·2	10·4	64·0	11·6
1936	123·0	19·4	369·1	58·1	66·3	10·4	76·7	12·1
1937	147·3	18·2	490·5	60·7	89·3	11·0	81·8	10·1
1938	119·3	17·6	424·7	62·7	66·8	9·9	66·6	9·8
1939	114·0	15·2	496·9	66·1	74·9	10·0	65·3	8·7
1940	161·2	14·9	744·2	68·8	106·2	9·8	70·3	6·5
1941	219·4	15·1	1,004·5	69·4	140·5	9·7	84·4	5·8
1942	161·1	9·8	1,304·7	79·3	112·7	6·9	65·8	4·0
1943	135·0	7·7	1,423·7	82·1	103·7	6·0	72·8	4·2
1944	110·6	6·3	1,447·2	82·3	109·8	6·2	91·3	5·2
1945[1]	140·5	8·9	1,202·4	75·8	131·2	8·2	111·7	7·1
1946[1]	201·4	10·4	1,405·3	72·9	139·1	7·2	181·5	9·4
Exports (Domestic)								
Ended Mar. 31—								
1886	36·7	47·2	34·3	44·1	3·3	4·2	3·5	4·5
1891	43·2	48·8	37·7	42·6	3·9	4·4	3·8	4·2
1896	62·7	57·2	37·8	34·4	4·0	3·7	5·2	4·7
1901	92·9	52·3	68·0	38·3	7·9	4·5	8·7	4·9
1906	127·5	54·2	83·5	35·5	11·0	4·6	13·5	5·7
1911	132·2	48·2	104·1	38·0	16·8	6·1	21·2	7·7
1916	451·9	60·9	201·1	27·1	30·7	4·2	58·0	7·8
1921	312·8	26·3	542·3	45·6	90·6	7·6	243·4	20·5
Ended Dec. 31—								
1926	459·2	36·4	457·9	36·3	95·7	7·6	248·4	19·7
1929	290·3	25·2	492·7	42·8	105·0	9·1	264·4	22·9
1930	235·2	27·2	373·4	43·3	81·1	9·4	173·9	20·1
1931	170·6	29·0	240·2	40·9	49·2	8·4	127·7	21·7
1932	178·2	36·4	158·7	32·4	39·0	7·9	114·0	23·3
1933	210·7	39·8	168·2	31·8	44·5	8·4	106·0	20·0
1934	270·5	41·6	218·6	33·7	64·9	10·0	95·3	14·7
1935	303·5	41·9	261·7	36·1	74·1	10·2	85·6	11·8
1936	395·4	42·1	333·9	35·6	84·3	9·0	124·3	13·3
1937	402·1	40·3	360·0	36·1	104·2	10·4	131·1	13·2
1938	339·7	40·6	270·5	32·3	103·2	12·3	124·2	14·8
1939	328·1	35·5	380·4	41·1	102·7	11·1	113·7	12·3
1940	508·1	43·1	443·0	37·6	147·9	12·5	80·0	6·8
1941	658·2	40·6	599·7	37·0	220·4	13·6	142·6	8·8
1942	741·7	31·4	885·5	37·5	412·1	17·4	324·4	13·7
1943	1,032·6	34·8	1,149·2	38·7	369·0	12·4	420·6	14·2
1944	1,235·0	35·9	1,301·3	37·8	385·4	11·2	518·2	15·1
1945	963·2	29·9	1,197·0	37·2	523·6	16·3	534·5	16·6
1946	597·5	25·8	887·9	38·4	307·2	13·3	519·6	22·4

[1] See p. 869 *re* Canadian military equipment returned. The percentages are considerably distorted by this factor in 1945 and 1946. With the military equipment excluded, the percentages become: 1945, 7·8, 76·7, 8·4, 7·1; 1946, 7·6, 75·3, 7·4, 9·7.

Tables showing dutiable and free imports from principal British Empire and foreign countries and average ad valorem rates of duty collected on dutiable and total imports from the United Kingdom, the United States and all countries have, in previous Year Books, been presented at this point in the treatment of foreign trade. The data under these headings are not available for the year 1946 at the time of going to press but the presentation will be continued in future editions.

Subsection 2.—Trade by Commodities

The tables in this Subsection provide detailed information about the composition of Canada's imports and exports, with commodities shown by groups and in order of importance for various years.

7.—Trade, by Main Groups, 1914, 1926, 1932, 1939, 1945 and 1946

Group	Values of Imports (Millions of Dollars)						Values of Domestic Exports (Millions of Dollars)					
	1914[1]	1926	1932	1939	1945	1946	1914[1]	1926	1932	1939	1945	1946
All Countries												
Agricultural and Vegetable Products	97·6	210·7	97·6	127·8	235·6	310·8	201·2	588·9	204·1	220·1	819·4	578·5
Animals and Products	41·1	53·5	17·5	32·8	46·6	64·2	76·6	168·0	55·6	131·8	398·1	358·5
Fibres and Textiles	109·2	184·2	69·0	100·9	196·8	264·1	1·9	7·1	4·8	14·4	56·9	53·7
Wood and Paper	37·4	46·4	22·8	33·7	49·8	69·6	63·2	286·3	134·0	242·5	488·0	625·6
Iron and Its Products	143·8	219·6	67·3	183·2	384·5	491·1	15·5	75·6	16·3	63·1	555·1	227·5
Non-Ferrous Metals	35·6	50·8	22·0	42·1	99·1	120·3	53·3[2]	74·7	44·2	182·9	352·5	247·8
Non-Metallic Minerals	85·3	152·7	95·3	132·8	265·4	332·6	9·3	27·1	9·7	29·3	59·6	57·3
Chemical and Allied Products	17·1	31·3	27·9	43·7	79·7	92·9	4·9	16·5	11·0	24·3	111·3	67·6
Miscellaneous Commodities	52·1	59·1	33·2	54·1	228·3	181·7	5·7	17·0	10·2	16·5	377·4	95·7
Totals, All Countries	**619·2**	**1,008·3**	**452·6**	**751·1**	**1,585·8**	**1,927·3**	**431·6**	**1,261·2**	**489·9**	**924·9**	**3,218·3**	**2,312·2**
United Kingdom												
Agricultural and Vegetable Products	16·2	37·7	21·5	13·0	4·3	5·7	146·8	339·3	108·8	94·2	237·0	224·3
Animals and Products	5·7	6·2	2·5	4·3	2·3	4·2	35·4	73·3	28·8	73·6	226·9	173·4
Fibres and Textiles	60·6	72·1	27·2	41·2	48·0	65·0	0·2	0·9	1·2	3·5	14·5	2·3
Wood and Paper	3·7	3·8	3·5	3·0	1·4	2·1	12·8	16·4	12·1	43·9	98·5	85·0
Iron and Its Products	17·3	15·4	12·5	19·3	7·0	15·4	1·4	6·9	5·2	16·0	162·5	17·1
Non-Ferrous Metals	4·8	5·7	3·7	5·1	16·3	18·4	16·6[2]	13·8	15·1	83·4	78·4	82·0
Non-Metallic Minerals	6·3	10·4	12·3	12·0	10·5	14·3	0·4	1·8	1·3	3·4	8·5	4·5
Chemicals and Allied Products	4·3	5·0	4·7	7·4	4·8	5·7	0·6	3·3	2·9	5·7	16·4	3·9
Miscellaneous Commodities	13·2	8·4	5·6	8·7	45·9[3]	70·6[3]	1·0	3·5	2·8	4·4	120·5	5·0
Totals, United Kingdom	**132·1**	**164·7**	**93·5**	**114·0**	**140·5**	**201·4**	**215·2**	**459·2**	**178·2**	**328·1**	**963·2**	**597·5**
United States												
Agricultural and Vegetable Products	44·1	97·0	33·7	45·4	122·2	155·5	34·1	61·1	4·7	79·5	279·0	113·8
Animals and Products	23·3	35·0	9·7	16·9	20·8	33·9	32·3	69·7	15·3	44·1	103·7	99·0

For footnotes, see end of table.

7.—Trade, by Main Groups, 1914, 1926, 1932, 1939, 1945 and 1946—concluded

Group	Values of Imports (Millions of Dollars)						Values of Domestic Exports (Millions of Dollars)					
	1914[1]	1926	1932	1939	1945	1946	1914[1]	1926	1932	1939	1945	1946
United States —concluded												
Fibres and Textiles.	32·5	70·4	25·5	41·6	109·3	140·2	1·2	3·3	0·9	2·3	10·2	10·4
Wood and Paper...	31·7	39·9	17·2	28·7	46·6	64·2	45·2	244·1	105·2	165·8	329·3	447·8
Iron and Its Products.............	121·4	196·8	51·6	158·1	375·0	467·0	2·0	10·1	2·1	5·0	48·4	32·0
Non-Ferrous Metals	27·7	40·3	16·3	29·2	65·8	84·1	34·2[2]	33·1	14·8	49·5	214·6	98·6
Non-Metallic Minerals.........	74·2	126·8	69·5	106·1	224·0	274·8	7·2	17·5	5·5	16·2	34·8	36·2
Chemicals and Allied Products..	9·6	20·2	17·3	30·7	71·3	83·6	3·2	8·4	4·7	9·7	51·9	30·0
Miscellaneous Commodities........	31·8	42·3	22·7	40·2	167·4	102·0	4·0	10·6	5·5	8·3	125·1	20·1
Totals, United States...........	**396·3**	**668·7**	**263·5**	**496·9**	**1,202·4**	**1,405·3**	**163·4**	**457·9**	**158·7**	**380·4**	**1,197·0**	**887·9**

[1] Year ended Mar. 31, 1914. [2] Includes gold. [3] In large part, returned Canadian military equipment.

8.—Principal Imports, 1939, 1945 and 1946

NOTE.—Commodities are arranged in order of importance, 1946.

Commodity	1946	1945	1939	Commodity	1946	1945	1939
	$'000,000	$'000,000	$'000,000		$'000,000	$'000,000	$'000,000
Machinery.........	130·3	92·8	42·8	Engines and boilers	29·5	28·0	7·6
Coal...............	120·4	102·4	41·6	Furs..............	27·3	21·2	7·1
Cotton and manufactures..........	119·2	89·4	36·6	Vegetables........	27·2	22·0	7·0
Automobiles and parts............	98·2	72·7	41·0	Glass and glassware............	23·3	16·1	7·9
Fruits.............	95·5	71·5	24·0	Flax, hemp and jute and products....	23·1	17·8	9·2
Petroleum, crude...	89·5	72·3	39·4	Nuts..............	22·6	14·3	3·7
Farm implements..	68·4	50·4	20·9	Artificial silk and products........	22·1	20·8	5·5
Wool and manufactures..........	64·6	43·7	26·2	Grain and products.............	20·2	12·5	8·9
Rolling-mill products.............	53·4	55·0	32·3	Rubber and manufactures.........	20·1	15·1	16·1
Electric apparatus..	47·8	43·1	13·8	Paper.............	18·8	13·4	8·7
Sugar and products.	39·9	32·1	23·4	Household and personal offices.....	18·6	8·4	6·5
Books and printed matter...........	30·7	21·4	15·2	Clay and products.	17·8	13·7	7·9
Petroleum, refined.	29·6	20·4	15·0				

9.—Principal Domestic Exports, 1939, 1945 and 1946

NOTE.—Commodities are arranged in order of importance, 1946.

Commodity	1946	1945	1939	Commodity	1946	1945	1939
	$'000,000	$'000,000	$'000,000		$'000,000	$'000,000	$'000,000
Newsprint paper....	265·8	179·5	115·7	Raw furs..........	30·9	28·5	14·1
Wheat.............	250·3	475·8	109·1	Whisky...........	29·7	23·0	7·9
Wheat flour........	126·7	97·9	16·4	Farm implements and machinery..	28·9	20·2	7·0
Planks and boards..	125·4	98·9	48·8	Pulpwood.........	28·7	23·9	11·9
Wood-pulp..........	114·0	106·1	31·0	Zinc..............	27·8	20·4	9·9
Fish..............	86·5	80·2	27·7	Fresh beef and veal	27·2	37·8	0·5
Automobiles, trucks and parts.........	78·3	300·6	25·5	Canned meats.....	27·1	21·8	0·8
Bacon and ham....	66·4	96·5	32·7	Eggs..............	26·8	44·1	0·3
Aluminum.........	56·0	133·6	25·7	Asbestos..........	24·5	22·2	14·4
Nickel............	55·2	54·8	57·9	Cheese............	21·9	27·9	12·2
Locomotives and railway cars......	53·3	45·9	0·4	Electrical apparatus............	20·9	61·0	3·2
Copper............	37·0	40·9	40·2	Ships and vessels..	18·8	15·6	0·5
Fertilizers..........	32·1	30·4	9·2				

The following tables provide an excellent survey of the changing structure of Canadian commodity trade over a 50-year period. Because of the abnormal conditions that governed wartime trade, these tables are not brought up later than 1939 but the data should be examined in conjunction with the brief history of Canadian trade at pp. 875-879 and the statistics of Tables **1** to **9**.

10.—Canada's Leading Imports, Years Ended Mar. 31, 1890, 1900, 1910, 1920, 1930 and 1939

NOTE.—Commodities arranged in order of importance, 1939.

No.	Commodity	1890	1900	1910	1920	1930	1939
		$	$	$	$	$	$
1	Petroleum, crude	[1]	23,344	1,189,081	20,306,693	50,951,202	41,483,348
2	Coal	8,013,156	11,012,223	27,516,678	60,072,629	56,812,418	35,937,195
3	Machinery, except farm	1,877,551	5,159,952	14,690,873	36,716,791	69,702,213	35,286,756
4	Rolling-mill products	5,645,704	11,905,937	15,692,052	39,985,746	61,943,553	23,482,193
5	Automobile parts	[1]	[1]	269,586	12,674,823	35,746,929	23,455,938
6	Fruits	2,400,851	3,133,407	8,316,462	33,463,270	34,277,882	21,209,784
7	Sugar and products	6,452,654	8,610,845	14,962,770	73,618,354	27,987,156	20,281,515
8	Farm implements	161,277	2,148,867	2,661,207	14,578,106	30,075,453	18,079,948
9	Books and printed matter	1,404,583	1,588,432	4,127,179	11,228,018	18,130,779	15,340,194
10	Grain and grain products	3,034,049	8,298,884	7,806,665	9,806,073	25,082,671	15,070,858
11	Cotton goods	3,792,584	6,399,705	17,928,093	49,088,060	27,275,170	14,466,653
12	Automobiles	[1]	[1]	1,732,215	15,035,545	34,464,666	13,131,262
13	Woollen goods, incl. carpets	10,900,600	9,427,575	20,767,010	45,545,127	32,632,927	12,735,945
14	Electrical apparatus	317,315	810,900	3,688,538	15,550,254	37,611,263	12,501,483
15	Rubber products	1,512,427	2,942,044	6,151,157	18,059,435	20,025,316	12,105,836
16	Petroleum, refined	690,283	830,025	2,326,681	10,566,692	25,180,476	12,034,010
17	Cotton, raw	3,539,249	4,229,198	9,384,801	33,854,457	21,682,463	11,311,409
18	Vegetable oils	612,671	826,882	1,872,265	15,973,417	12,244,151	10,538,840
19	Tea	3,073,643	3,604,027	5,347,854	8,336,163	10,694,379	9,598,848
20	Flax, hemp, and jute	1,416,217	3,551,037	5,340,312	15,923,836	14,995,198	7,981,962
21	Paper	1,208,683	1,378,749	4,567,810	9,949,574	14,764,904	7,575,317
22	Clay and products	948,876	1,593,255	3,418,844	6,371,567	12,256,769	7,193,037
23	Engines and boilers	188,759	778,364	2,019,558	12,997,757	15,146,436	7,132,502
24	Alcoholic beverages[2]	1,695,161	1,938,112	4,459,566	9,135,536	45,026,487	6,805,490
25	Stone and products	862,037	1,029,711	1,773,953	3,687,702	8,702,988	6,718,684
26	Glass and glassware	1,268,314	1,658,694	2,932,104	6,926,459	10,453,706	6,696,774
27	Vegetables	337,859	625,749	1,751,265	5,722,600	11,040,765	6,075,290
28	Noils, tops, and waste wool	12,100	151,510	599,446	5,830,957	3,833,801	5,582,058
29	Furs	1,058,001	2,106,441	5,768,075	12,877,520	11,923,949	5,458,739
30	Leather	1,173,777	1,879,333	4,202,934	17,102,702	11,537,331	5,052,200
31	Wood, unmanufactured	1,444,727	3,775,240	8,324,585	14,112,391	15,348,150	4,786,947
32	Aluminum	159	12,543	794,490	2,747,385	6,058,864	4,562,424
33	Silk, raw	193,529	277,708	393,011	3,090,845	8,360,968	4,499,278
34	Dyeing and tanning materials	484,217	711,508	1,412,099	5,623,720	3,548,656	4,418,127
35	Wood, manufactured	1,355,230	824,195	3,085,079	7,893,284	12,711,307	4,239,406
36	Silk, artificial	[1]	[1]	[1]	[1]	13,418,910	4,212,772
37	Fertilizers	14,444	88,974	5,395,423	1,796,752	5,033,592	3,863,293
38	Paints and varnishes	672,885	1,012,535	1,376,023	3,821,880	5,957,078	3,779,167
39	Wool, raw	1,729,058	1,574,834	1,587,175	2,672,211	4,306,945	3,784,320
40	Coffee, green	591,158	491,148	1,194,061	4,711,079	5,924,635	3,622,669
41	Nuts, edible	231,449	400,441	1,237,292	5,889,573	5,095,109	3,483,983
42	Drugs and medicines	513,331	481,359	962,083	3,402,932	3,808,721	3,368,361
43	Hides and skins, raw	1,703,093	4,214,012	8,235,819	22,654,661	8,402,075	3,236,395
44	Settlers' effects	1,810,217	3,065,410	10,273,428	10,181,034	11,181,203	3,123,599
45	Iron ore	551	282,191	3,345,550	4,601,716	5,020,921	2,735,091
46	Soda and compounds	329,084	624,873	785,524	2,982,371	4,410,621	2,610,663
47	Cotton yarns	17,879	321,348	767,760	4,078,510	3,827,867	2,504,708
48	Brass and products	554,545	851,606	2,228,215	4,531,015	7,000,455	2,437,964
49	Woollen yarns	117,729	402,328	1,671,765	4,445,270	5,870,353	2,353,577
50	Fish	899,683	1,060,708	1,630,744	3,491,678	3,474,921	2,325,702
51	Silk goods	2,654,505	3,880,535	3,590,829	31,341,944	19,606,589	2,271,307
52	Hardware and cutlery	1,250,369	1,434,209	1,937,647	4,210,142	4,950,119	2,122,906
53	Cocoa and chocolate	118,569	286,363	1,130,335	7,626,745	3,651,425	2,104,090
54	Tools	427,305	825,541	891,820	2,050,286	3,192,449	2,090,617

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[1] None recorded.

[2] The British excise tax was not included in the valuation of imported whisky after Apr. 1, 1935, and the values are not comparable for later years.

10.—Canada's Leading Imports, Years Ended Mar. 31, 1890, 1900, 1910, 1920, 1930 and 1939—concluded

No.	Commodity	1890	1900	1910	1920	1930	1939
		$	$	$	$	$	$
55	Clocks and watches....	773,534	698,378	1,459,617	3,126,267	3,495,659	2,072,602
56	Tubes and pipe, iron....	484,008	1,122,987	2,358,848	4,160,378	5,948,162	1,902,843
57	Tobacco, raw..........	1,344,985	1,508,359	3,229,239	13,604,757	6,471,626	1,853,969
58	Manila, sisal, istle, etc., fibre.................	[1]	[1]	1,548,457	5,195,812	3,822,613	1,801,513
59	Meats..................	1,632,143	1,371,184	2,427,901	22,100,333	7,599,473	1,798,249
60	Stamped and coated products............	42,042	268,545	492,884	1,016,777	2,349,230	1,548,253
61	Seeds..................	478,397	1,916,994	1,167,321	4,210,782	5,061,255	1,462,895
62	Gums and resins.......	159,508	287,276	2,256,307	4,987,716	3,431,591	1,428,266
63	Coke..................	155,513	506,839	1,695,603	2,476,450	6,403,354	1,413,111
64	Animals, living........	837,385	841,168	1,711,723	2,570,377	2,802,754	1,406,109
65	Sulphur...............	44,276	215,433	430,632	1,296,458	3,823,245	1,376,302
66	Wire, iron.............	387,490	1,844,788	3,530,226	5,843,623	3,658,798	1,335,684
67	Musical instruments....	434,814	390,407	1,207,592	4,329,093	3,130,873	1,171,754
68	Surgical instruments...	25,186	103,740	209,302	1,137,567	1,937,334	1,035,249
69	Diamonds, unset.......	110,480	451,792	1,902,710	4,470,846	3,193,871	1,033,184
70	Plants and trees........	136,326	28,510	178,470	709,507	1,913,447	889,464
71	Celluloid in lumps......	18,311	27,136	120,002	743,856	2,042,941	885,964
72	Nickel-plated ware.....	13,578	18,843	573,591	1,630,047	3,022,935	833,810
73	Spices.................	213,677	842,597	428,075	1,130,902	1,478,575	794,553
74	Copper and products...	484,189	1,271,270	3,488,260	8,568,035	14,898,632	780,780
75	Optical instruments....	40,515	181,852	575,929	947,075	1,391,045	702,272
76	Hats and caps.........	1,258,409	1,637,422	3,420,609	4,216,333	2,908,340	546,009
77	Soap..................	148,618	446,135	813,619	1,534,082	1,316,418	473,531
78	Salt...................	309,840	325,433	465,253	1,336,176	897,925	437,779
79	Butter.................	62,212	290,220	92,934	176,994	14,471,688	96,454

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[1] None recorded.

11.—Canada's Leading Domestic Exports, Years Ended Mar. 31, 1890, 1900, 1910, 1920, 1930 and 1939

Note.—Commodities arranged in order of importance, 1939.

No.	Commodity	1890	1900	1910	1920	1930	1939
		$	$	$	$	$	$
1	Newsprint............	[1]	[1]	2,612,243	53,640,122	145,610,519	107,360,211
2	Wheat................	388,861	11,995,488	52,609,351	185,045,806	215,753,475	84,494,433
3	Nickel...............	[1]	1,040,498	3,320,054	9,039,221	25,034,975	49,565,526
4	Copper in forms........	[1]	[1]	[1]	541,338	48,181	42,190,363
5	Planks and boards.....	17,637,308	22,015,990	33,100,387	75,216,193	49,446,887	37,100,824
6	Meats.................	895,767	13,615,621	8,013,680	96,161,234	15,030,671	35,375,618
7	Wood-pulp............	168,180	1,816,016	5,204,597	41,383,482	44,704,958	26,814,418
8	Fish..................	8,099,674	10,564,688	15,179,015	40,687,172	34,767,739	25,622.980
9	Aluminum in bars, etc.	[1]	[1]	1,202,723	5,680,871	13,828,010	24,794,611
10	Automobiles..........	[1]	[1]	405,011	14,883,607	35,607,645	22,806,873
11	Wheat flour...........	521,383	2,791,885	14,859,854	94,262,922	45,457,195	15,777,707
12	Furs, raw.............	1,874,327	2,264,580	3,749,005	20,628,109	18,706,311	13,584,861
13	Fruits, chiefly apples...	1,073,890	3,305,662	5,492,197	8,347,549	9,593,484	13,569,438
14	Asbestos, raw.........	444,159	490,909	1,886,613	8,767,856	12,074,065	13,265.885
15	Pulpwood.............	80,005	902,772	6.076,638	8,454,863	13,860,209	13,231,521
16	Cheese...............	9,372,212	19,856,324	21,607,692	36,336,863	18,278,004	12,052,703
17	Silver ore and bullion..	201,615	1,354,053	15,009,937	14.255,601	11,569,855	11,509,345
18	Copper ore and blister..	133,251	1,387,388	6,023,925	11,871,039	37,735,413	10,572,203
19	Cattle................	6,949,417	8,704,523	10.792,156	46,064,631	13,119,462	10,280,469
20	Machinery, except farm	143,815	446,391	924,510	6,416,591	7,154,706	9,703.463
21	Whisky...............	25,383	396,671	1,010,657	1,504,132	25,856,136	9,457,275
22	Lead.................	2,000	688,891	529,422	1,193,144	10,637,887	9,433,528
23	Platinum or other metals of the platinum group, in concentrates or other forms.......	[1]	[1]	61,717	39,058	357,748	8,988,895
24	Zinc..................	[1]	[1]	[1]	950,082	8,366,712	8,872,584
25	Rubber tires and tubes.	[1]	[1]	[1]	7,395,172	18,153,225	8,174,002
26	Gold, raw.............	657,022	14,148,543	6,016,126	5,974,334	34,375,003	8,111,940
27	Barley................	4,600,409	1,010,425	1,107,732	20,206,972	10,388,735	7,997,617

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[1] None recorded.

11.—Canada's Leading Domestic Exports, Years Ended Mar. 31, 1890, 1900, 1910, 1920, 1930 and 1939—concluded

No.	Commodity	1890	1900	1910	1920	1930	1939
		$	$	$	$	$	$
28	Fertilizers	4,291	51,410	371,315	6,694,037	7,990,313	7,312,976
29	Vegetables	597,074	503,993	1,534,228	11,656,483	11,240,747	6,723,768
30	Farm implements and machinery	367,198	1.692,155	4,319,385	11,614,400	18,396,688	6,453,042
31	Shingles, wood	340,872	1,131,506	2,331,443	10,848,602	6.704,494	5,742,216
32	Stone and products	949,158	575.749	955,636	3,531,916	6,909,442	5,292,968
33	Rubber footwear	[1]	[1]	129,618	1,750,967	9,986,392	4,776,273
34	Tobacco, raw	234	3,661	76,564	130,264	504,264	4,766,103
35	Logs, wood	682,572	760,416	999,681	1,819,083	3,677,917	4,593,802
36	Electric energy	[1]	[1]	[1]	[1]	4,028,154	4,188,644
37	Sodium compounds	[1]	[1]	[1]	[1]	4,208,518	4,144,020
38	Paper board	[1]	[1]	[1]	4,568,066	2,506,496	3,978,111
39	Electrical apparatus	[1]	[1]	27,743	424,474	2,521,045	3,864,778
40	Hides and skins, raw	506,402	1,396,907	5,508,185	19,762,646	7,730,914	3,716,630
41	Cereal foods	[1]	[1]	1,689,648	1,087,901	2,431,137	3,545,354
42	Films	[1]	[1]	7,746	1,486,079	4,790,619	3,432,603
43	Milk, processed	[1]	[1]	541,372	8,517,771	3,262,101	3,428,080
44	Seeds	182,200	322,652	4,602,797	9,915,391	3,237,774	3,267,647
45	Oatmeal and rolled oats	254,857	475,991	1,123,861	4,283,772	2,440,968	3,189,346
46	Pigs, ingots, and blooms, iron	[1]	137,651	228,183	6,595,688	4,727,137	3,031,805
47	Oats	256,156	2,143,179	1,566,612	9,349,455	4,055,855	2,726,956
48	Automobile parts	[1]	[1]	[1]	3,097,466	2,298,742	2,528,397
49	Settlers' effects	818,001	1,095,536	2,274,005	7,631,498	6.304,199	2,444,514
50	Hardware and cutlery	84,109	278,054	100,085	7,730,826	1,743,096	2,342,847
51	Bran and shorts	86,225	145,206	1,842.620	2,983.843	2,582,484	2,195,494
52	Butter	340,131	5,122,156	1,010,274	9,844,359	543,851	2,092,518
53	Sugar and products	18,101	100,108	153,357	30,695,005	4,798,712	2,022,987
54	Malt	150,380	10,939	11,328	1,320,773	64,736	1,624,148
55	Coal	2,447,936	4,599,602	5,013,221	13,183,666	3,998,692	1,510,350
56	Leather, unmanufactured	727,087	1,535,440	1,296,480	11,742,268	6,496,951	1,452,453
57	Timber, square	4,353,870	2,013,746	934,723	2,148,162	4,235,309	1,439,243
58	Acids	5,545	67	[1]	901,397	5,096,529	1,360,300
59	Wrapping paper	[1]	[1]	9,098	2,917,197	1,655,568	1,188,077
60	Poles, telegraph and telephone	92,326	36,891	56,177	206,834	3,917,536	1,089,807
61	Brass and products	[1]	[1]	[1]	1,644,157	2,332,962	1,062,151
62	Binder twine	[1]	[1]	[1]	5,530,908	1,502,921	1,043,127
63	Petroleum products	15,812	1,653	1,155	1,176,644	2,527,178	900,232
64	Stationery	[1]	[1]	23,380	276,224	602,170	875,510
65	Tubes and pipe, iron	[1]	[1]	[1]	2,325,369	2,202,769	816,747
66	Sausage casings	[1]	[1]	[1]	564,222	955,933	788,835
67	Hair	1,068,554	1,414,109	1,805,849	4,087,670	2,007,944	624,671
68	Laths, wood	392,500	749,301	1,882,950	3,668,511	3,095,417	522,357
69	Rye	220,761	279,286	84,658	3,475,834	1,451,640	509,811
70	Ale, beer, and porter	10,347	6,272	2,687	144,077	1,995,990	119,496
71	Milk and cream, fresh	[1]	[1]	[1]	1,699,090	5,379,174	6,486

[1] None recorded.

The two detailed tables showing principal imports into Canada for consumption from the United States, the United Kingdom and all countires and principal exports of Canadian produce from Canada to the United States, the United Kingdom and all countries, respectively, that constitute a regular feature of the Year Book treatment of Foreign Trade are omitted this year because later figures than those published in the 1946 edition (1945) were not available at the time of going to press. Comparable figures for 1946 are available from the Trade Reports published by the External Trade Division of the Dominion Bureau of Statistics.

Subsection 3.—Imports and Exports by Degree of Manufacture, Origin and Purpose

Analyses of Canada's trade, from the angle of degree of manufacture of imports and exports with leading countries, are of value to the student of economic relationships because they present, in summary, a picture with significant meaning in the complementary relationship of manufacturing and commerce between continents and countries.

The data of Table **12** have been specially tabulated to show at a glance this information for all countries of any importance that trade with Canada. Table **13**, on the other hand, gives historical statistics that clearly indicate the fluctuations in imports for home consumption of important raw materials used in Canadian manufacture, irrespective of their source. In a broad way, the data reflect the development of Canadian manufactures, although the dislocations in trade caused by the War must be borne in mind in using the figures for the past six years.

12.—Imports and Exports, by Continents and Leading Countries, According to Degree of Manufacture, 1945

Country	Imports			Domestic Exports		
	Raw Materials	Partially Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partially Manufactured	Fully or Chiefly Manufactured
British Empire	$	$	$	$	$	$
United Kingdom	1,456,295	15,015,585	124,045,568	250,370,120	121,973,926	590,893,641
Eire	Nil	Nil	8,949	12,286,733	551,134	1,440,415
Africa—						
British East	1,525,945	"	12,868	6,192	31,406	3,748,918
British South	6,643,255	510,897	1,279,087	4,251,281	4,604,184	22,737,558
Southern Rhodesia	541,011	Nil	500	19,034	284,000	1,705,470
British West—						
Gold Coast	6,247,732	119,059	Nil	208	Nil	889,867
Nigeria	2,393,501	1,028,346	10	965	"	317,455
Bermuda	48,302	Nil	45,677	264,768	62,043	2,183,726
British East Indies—						
British India	3,137,765	1,023,916	26,405,965	31,183,721	1,887,514	274,389,712
Ceylon	17,101	629,060	5,036,348	1,231,424	446,739	6,611,726
Straits Settlements	Nil	Nil	Nil	55,064	Nil	1,058,738
British Guiana	4,474,351	4,485,280	378,419	624,915	65,810	5,726,850
British Honduras	275,239	174,597	113	16,733	6,789	860,130
British West Indies—						
Barbados	Nil	3,448,129	2,017,890	419,678	512,532	3,818,182
Jamaica	3,462,204	4,358,383	1,452,846	673,741	338,884	13,391,464
Trinidad and Tobago	6,672	2,258,972	835,157	1,294,656	524,851	14,613,328
Other	619,687	77,601	159,385	436,234	215,602	6,213,408
Gibraltar	Nil	Nil	Nil	314,435	14,098	257,111
Malta	7,844	6,203	7,293	3,251,628	420,071	1,068,058
Newfoundland	4,002,743	12,898	12,583,934	8,744,920	801,506	30,968,676
Oceania—						
Australia	8,050,075	4,868,738	4,260,847	955,833	6,340,270	24,929,660
Fiji	212	1,607,088	Nil	558	83,245	177,207
New Zealand	6,661,736	1,131,978	1,482,050	8,058,624	630,044	10,413,559
Palestine	Nil	Nil	414,710	602,559	507,632	1,756,064
Totals, British Empire[1]	**49,583,829**	**41,230,769**	**180,853,864**	**325,080,011**	**140,326,873**	**1,021,440,953**

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[1] Includes other countries not specified.

12.—Imports and Exports, by Continents and Leading Countries, According to Degree of Manufacture, 1945—concluded

Country	Imports			Domestic Exports		
	Raw Materials	Partially Manu-factured	Fully or Chiefly Manu-factured	Raw Materials	Partially Manu-factured	Fully or Chiefly Manu-factured
	$	$	$	$	$	$
Foreign Countries						
Afghanistan	2,023,664	15,816	39,375	Nil	Nil	6,254
Argentina	1,789,904	1,911,201	3,632,003	568,313	1,072,572	4,361,985
Belgium	49,357	78,501	251,993	19,674,350	2,942,328	12.001,027
Belgian Congo	67	333,171	75	9,632	209	934,825
Brazil	3,537,094	961,738	3,101,926	137,360	3,090,155	13,520,442
Chile	104,957	271,449	185,157	1,282,563	419,271	859,755
China	Nil	Nil	239	15,513	125,570	6,431,715
Colombia	11,445,381	13,858	218,837	864,987	704,836	3,440,878
Costa Rica	503,360	5,476	84,919	127,519	26,007	367,865
Cuba	2,020,103	5,243,610	248,199	759,759	823,614	2,951,433
Czechoslovakia	Nil	Nil	Nil	506,359	9,105	6,201,636
Greenland	270,865	"	50	28,564	196,049	663,247
Ecuador	1,816,656	83,769	64,054	6,226	19,609	334,555
Egypt	182,628	657	30,109	12,697,933	104,119	23,614,873
France	22,749	Nil	250,441	15,998,567	7,271,077	53,646,966
French Africa	295,198	13,081	Nil	9,795,508	31,786	7,080,736
St. Pierre and Miquelon	2,406	Nil	8,174	221,415	23,533	491,865
Germany	Nil	"	2,105	968,023	Nil	1,756,483
Greece	663	"	1,706	16,462,968	13,500	9,086,849
Guatemala	1,734,852	10,031	34,072	370	32,353	391,240
Haiti	297,676	98,699	117,347	730	2,894	608,844
Honduras	8,016,204	Nil	460	30,716	16,661	140,272
Iceland	Nil	245	30,357	281,899	571,546	2,827,613
Iraq (Mesopotamia)	"	3,349	970,270	2.049,606	457,369	987,472
Italy	"	Nil	533	3,510,252	83,938	85,876,056
Mexico	12,068,429	73,461	1,366,275	825,881	1,754,684	5,584,493
Morocco	67,251	Nil	43,575	8,656,385	29,625	505,772
Netherlands	329,488	"	71,744	26,779,388	1,344,238	11,846,539
Netherlands East Indies	17,818	"	Nil	Nil	Nil	855,770
Netherlands West Indies	29,583	"	800,767	37,165	3,794	757,631
Norway	Nil	"	640,975	2,599,841	32,323	5,209,600
Panama	33,698	"	Nil	18,546	96,043	891,712
Persia (Iran)	314,474	17,997	73,040	3,339	120,202	1,692,957
Peru	105,223	369	42,996	2,117,124	167,366	1,672,198
Poland	Nil	Nil	Nil	231,879	72,287	8,945,029
Portugal	103,847	12,541	1,541,198	710,141	98,264	1,547,821
Portuguese Africa	306,307	Nil	Nil	396,707	6,639	408,264
Russia (U.S.S.R.)	1,016,476	153,511	577,461	9,639,918	8,033,010	41,146,597
Salvador	1,502,191	Nil	Nil	123,368	24,768	237,692
San Domingo (Dominican Republic)	442,377	5,750,886	7,566	50,986	51,647	629,533
Spain	992,335	810,720	2,550,420	1,089	963,576	26,922
Sweden	195,979	Nil	896,540	264,908	2,968,266	935,658
Switzerland	46,527	"	7,816,362	862,677	3,811,437	6,247,850
Syria	19,381	"	Nil	440,925	274	189,209
Turkey	55,519	2,506	218,968	17,967	72,005	619,665
United States	310,067,257	36,553,551	855,796,826	390,612,658	357,433,510	448,930,558
Hawaii	Nil	Nil	6,507	41,888	87	3,891,736
Philippine Islands	"	"	25	Nil	3,543	2,149,721
Puerto Rico	14,017	36,480	646	92,537	93,373	2,115,404
Uruguay	70,571	10,474	14,315	210,766	207,647	1,438,892
Venezuela	16,950,293	Nil	317,010	677,702	80,237	3,295,103
Yugoslavia	Nil	"	Nil	1,656,759	32,502	10.021,260
Totals, Foreign Countries[1]	**379,199,334**	**52,467,147**	**882,440,199**	**533,234,172**	**395,604,207**	**802,644,137**
Grand Totals	**428,783,163**	**93,697,916**	**1,063,294,063**	**858,314,183**	**535,931,080**	**1,824,085,090**
Continents						
Europe	**4,221,560**	**16,077,306**	**138,762,610**	**366,372,514**	**151,206,626**	**851,609,775**
North America	**345,543,709**	**58,102,774**	**875,642,455**	**404,938,650**	**363,093,129**	**537,510,439**
South America	**40,329,330**	**7,738,138**	**8,610,851**	**6,496,120**	**5,840,270**	**35,226,850**
Asia	**5,585,722**	**1,692,644**	**33,160,730**	**35,613,764**	**3,644,921**	**297,450,484**
Oceania	**14,755,542**	**8,017,178**	**5,749,404**	**9,056,903**	**7,054,166**	**39,624,751**
Africa	**18,347,300**	**2,069,876**	**1,368,013**	**35,836,232**	**5,091,968**	**62,662,791**

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[1] Includes other countries not specified.

13.—Imports of Certain Raw Materials Used in Canadian Manufactures, 1926-46

Note.—For figures for the years ended Mar. 31, 1902-10, see the Canada Year Book, 1926, p. 463, and for the years ended Mar. 31, 1911-39, the 1940 edition, p. 533. Calendar-year figures are available only for 1926 and subsequent years.

Year	Sugar for Refining	Vegetable Oil for Soap	Cotton-seed Oil, Crude	Rubber, Raw, (including Balata)	Tobacco, Raw	Hides and Skins	Cotton, Raw (including Linters)	Hemp, Dressed or Undressed	Silk, etc., Raw
	ton	gal.	cwt.	cwt.	lb.	cwt.	cwt.	cwt.	lb.
1926.....	564,955	3,474,017	291,867	453,736	16,100,333	584,033	1,450,014	186,742	620,993
1927.....	476,983	3,410,624	530,972	592,596	18,678,745	654,967	1,513,532	87,795	880,313
1928.....	454,691	3,665,254	428,081	692,414	17,943,070	586,128	1,455,153	51,678	1,149,540
1929.....	454,689	4,924,598	370,043	795,175	17,717,610	449,628	1,487,414	42,559	1,572,485
1930.....	447,300	3,862,344	249,601	645,167	17,435,153	412,940	1,083,163	29,099	1,822,870
1931.....	465,410	4,387,341	161,533	566,111	14,323,108	271,491	1,033,237	21,581	2,260,243
1932.....	432,283	3,337,048	539,017	468,720	7,690,154	296,823	1,049,067	19,797	2,866,080
1933.....	392,262	4,885,192	290,898	433,001	9,510,955	314,179	1,262,692	18,911	2,415,975
1934.....	427,538	4,603,534	169,337	637,393	8,602,232	299,377	1,484,748	22,473	2,647,050
1935.....	448,231	4,435,793	202,766	602,286	6,544,106	401,995	1,266,007	17,435	3,274,721
1936.....	518,028	7,967,082	190,702	624,629	3,289,994	360,574	1,554,454	44,002	2,145,790
1937.....	461,084	11,533,292	190,167	810,348	2,569,177	404,673	1,663,339	14,288	2,445,871
1938.....	478,772	10,492,071	140,419	575,987	4,458,578	252,089	1,449,431	17,125	2,507,683
1939.....	517,181	10,644,601	103,715	728,504	4,414,955	490,708	1,705,877	10,445	2,304,618
1940.....	527,511	11,665,678	177,638	1,177,854	3,857,310	440,215	2,271,449	874	2,392,833
1941.....	535,920	10,613,994	224,313	1,493,046	2,006,423	453,238	2,685,221	Nil	807,371
1942.....	304,786	3,420,531	101,244	738,235	1,452,330	356,540	2,802,545	"	106,015
1943.....	412,699	3,089,133	187,036	459,085	1,323,847	347,652	1,509,916	"	Nil
1944.....	445,829	1,902,400	306,224	164,536	1,380,157	230,597	1,816,530	"	"
1945.....	418,838	3,293,622	244,814	186,609	1,581,290	121,689	2,023,135	"	"
1946.....	430,849	2,661,722	82,555	300,523	1,745,604	95,687	1,916,390	448	22,893

	Wool, Raw[1]	Noils and Worsted Tops	Artificial Silk Rovings, Yarns, etc.	Manila, Sisal, Istle, Tampico	Rags, Waste Paper, and Other Waste	Iron Ore	Alumina, Bauxite, Cryolite	Tin in Blocks, Ingots, etc.	Petroleum, Crude for Refining
	cwt.	cwt.	lb.	cwt.	cwt.	ton	cwt.	cwt.	'000 gal.
1926.....	153,626	74,985	1,801,825	481,165	1,369,957	1,465,715	1,515,464	51,079	570,444
1927.....	143,538	83,967	1,978,376	606,937	1,402,259	1,487,366	2,556,836	48,338	684,713
1928.....	142,712	81,823	2,043,830	654,766	1,304,091	2,222,897	3,344,419	53,587	854,411
1929.....	120,861	71,406	2,221,609	602,046	1,575,321	2,447,807	2,901,893	57,145	1,065,909
1930.....	94,590	57,912	2,373,781	461,899	1,356,564	1,485,429	2,185,006	52,737	1,021,035
1931.....	108,486	68,272	1,780,989	458,774	1,342,878	808,420	1,963,271	41,258	1,020,762
1932.....	87,171	88,335	1,088,393	746,029	909,984	67,567	1,035,373	31,484	910,207
1933.....	137,611	110,028	1,757,017	698,593	815,928	205,703	1,098,721	28,341	980,090
1934.....	149,322	97,022	1,210,600	482,830	1,123,697	977,341	1,643,467	39,999	1,074,291
1935.....	148,722	127,744	1,214,656	524,572	1,125,868	1,509,933	2,551,217	46,770	1,156,818
1936.....	227,816	130,665	1,167,936	627,885	1,120,323	1,317,033	3,489,358	48,468	1,251,504
1937.....	244.267	119,677	2,022,144	449,401	1,384,137	2,124,972	6,219,124	58,798	1,361,348
1938.....	155,244	105,245	1,756,813	444,613	895,206	1,302,430	7,494,629	52,752	1,228,091
1939.....	190,777	123,051	3,128,339	556,842	1,330,024	1,764,844	10,210,575	58,257	1,297,660
1940.....	355,618	180,170	3,482,255	877,626	1,845,171	2,418,237	13,963,054	118,378	1,491,072
1941.....	486,223	153,664	4,690,108	931,427	1,299,646	3,254,655	23,232,943	174,381	1,637,465
1942.....	739,494	126,369	3,541,497	788,081	1,036,298	2,701,968	26,679,928	72,051	1,542,597
1943.....	795,033	80,884	3,317,187	740,955	944,393	3,906,425	60,661,690	26,311	1,739,505
1944.....	281,475	62,492	10,161,758	810,906	1,098,846	3,126,649	26,613,324	26,823	1,996,445
1945.....	304,923	72,849	13,954,822	730,086	1,125,341	3,739,867	18,880,295	71,950	1,987,943
1946.....	532,407	118,787	7,874,871	967,970	1,767,857	2,281,677	25,723,852	84,020	2,218,963

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[1] Includes hair of the camel, alpaca, goat, etc.

14.—Imports and Exports, by Main Groups and Degree of Manufacture, According to Origin, 1945

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	$	$	$	$	$	$
Farm Origin						
Canadian Farm Products—[1]						
Field Crops—						
Raw materials	118,450	42,989,581	47,537,048	177,800,539	231,726,297	613,670,282
Partly manufactured	Nil	1,886,227	2,471,490	1,104,646	492,700	2,671,490
Fully or chiefly manufactured	4,655,395	8,525,592	15,807,751	52,111,959	33,725,771	173,695,951
Totals, Field Crops	4,773,845	53,401,400	65,816,289	231,017,144	265,944,768	790,037,723
Animal Husbandry—						
Raw materials	619,217	4,082,730	23,255,540	56,368,010	23,895,989	86,501,438
Partly manufactured	5,945,399	5,638,416	15,228,843	805,664	1,534,934	4,344,552
Fully or chiefly manufactured	19,459,525	9,263,649	31,781,909	160,512,284	3,291,314	212,386,884
Totals, Animal Husbandry	26,024,141	18,984,795	70,266,292	217,685,958	28,722,237	303,232,874
All Canadian Farm Products—						
Raw materials	737,667	47,072,311	70,792,588	234,168,549	255,622,286	700,171,720
Partly manufactured	5,945,399	7,524,643	17,700,333	1,910,310	2,027,634	7,016,042
Fully or chiefly manufactured	24,114,920	17,789,241	47,589,660	212,624,243	37,017,085	386,082,835
Totals, Canadian Farm Products	30,797,986	72,386,195	136,082,581	448,703,102	294,667,005	1,093,270,597
Foreign Farm Products—[1]						
Field Crops—						
Raw materials	111,212	87,114,714	131,809,928	4,476	11,335,468	11,395,022
Partly manufactured	15,436	4,350,186	40,718,549	Nil	537,541	552,163
Fully or chiefly manufactured	14,005,479	59,035,107	118,560,786	9,217,404	9,963,960	40,688,229
Totals, Field Crops	14,132,127	150,500,007	291,089,263	9,221,880	21,836,969	52,635,414
Animal Husbandry—						
Raw materials	1,610	973,175	7,716,426	Nil	Nil	Nil
Partly manufactured	Nil	6,434	11,364	"	"	"
Fully or chiefly manufactured	344,084	2,248,828	2,705,007	"	"	12
Totals, Animal Husbandry	345,694	3,228,437	10,432,797	-	-	12
All Foreign Farm Products—						
Raw materials	112,822	88,087,889	139,526,354	4,476	11,335,468	11,395,022
Partly manufactured	15,436	4,356,620	40,729,913	Nil	537,541	552,163
Fully or chiefly manufactured	14,349,563	61,283,935	121,265,793	9,217,404	9,963,960	40,688,241
Totals, Foreign Farm Products	14,477,821	153,728,444	301,522,060	9,221,880	21,836,969	52,635,426

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[1] In this classification the expression "Canadian Farm Products" refers, in the case of exports, to commodities actually produced, in their original state, on Canadian farms. In the case of imports, it covers all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers, in both imports and exports, materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

14.—Imports and Exports, by Main Groups and Degree of Manufacture, According to Origin, 1945—concluded

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Farm Origin—concluded	$	$	$	$	$	$
ALL FARM PRODUCTS—						
All Field Crops—						
Raw materials	229,662	130,104,295	179,346,976	177,805,015	243,061,765	625,065,304
Partly manufactured	15,436	6,236,413	43,190,039	1,104,646	1,030,241	3,223,653
Fully or chiefly manufactured	18,660,874	67,560,699	134,368,537	61,329,363	43,689,731	214,384,180
Totals, All Field Crops	18,905,972	203,901,407	356,905,552	240,239,024	287,781,737	842,673,137
All Animal Husbandry—						
Raw materials	620,827	5,055,905	30,971,966	56,368,010	23,895,989	86,501,438
Partly manufactured	5,945,399	5,644,850	15,240,207	805,664	1,534,934	4,344,552
Fully or chiefly manufactured	19,803,609	11,512,477	34,486,916	160,512,284	3,291,314	212,386,896
Totals, All Animal Husbandry	26,369,835	22,213,232	80,699,089	217,685,958	28,722,237	303,232,886
All Farm Products—						
Raw materials	**850,489**	**135,160,200**	**210,318,942**	**234,173,025**	**266,957,754**	**711,566,742**
Partly manufactured	**5,960,835**	**11,881,263**	**58,430,246**	**1,910,310**	**2,565,175**	**7,568,205**
Fully or chiefly manufactured	**38,464,483**	**79,073,176**	**168,855,453**	**221,841,647**	**46,981,045**	**426,771,076**
Totals, Farm Origin	**45,275,807**	**226,114,639**	**437,604,641**	**457,924,982**	**316,503,974**	**1,145,906,023**
Wild Life Origin						
Raw materials	1,183	3,135,116	4,501,689	1,358,605	26,520,387	28,596,966
Partly manufactured	81,957	846,960	1,113,307	4,088	107,591	700,953
Fully or chiefly manufactured	94,250	465,817	936,568	1,154	188,022	350,273
Totals, Wild Life Origin	**177,390**	**4,447,893**	**6,551,564**	**1,363,847**	**26,816,000**	**29,648,192**
Marine Origin						
Raw materials	2,448	861,589	2,826,131	3,892,223	40,845,302	44,768,858
Partly manufactured	Nil	Nil	Nil	Nil	Nil	Nil
Fully or chiefly manufactured	143,503	1,036,873	3,322,898	9,902,135	12,495,432	40,315,051
Totals, Marine Origin	**145,951**	**1,898,462**	**6,149,029**	**13,794,358**	**53,340,734**	**85,083,909**
Forest Origin						
Raw materials	Nil	660,248	768,758	4,452,366	28,998,797	33,884,809
Partly manufactured	14,430	8,994,445	9,492,428	79,775,434	133,787,324	231,960,038
Fully or chiefly manufactured	1,401,429	40,748,748	44,903,781	14,625,944	166,554,633	222,657,747
Totals, Forest Origin	**1,415,859**	**50,403,441**	**55,164,967**	**98,853,744**	**329,340,754**	**488,502,594**
Mineral Origin						
Raw materials	602,175	170,247,833	210,351,812	6,493,901	27,290,418	39,496,808
Partly manufactured	8,894,212	11,111,127	20,765,981	40,276,276	219,751,767	294,461,233
Fully or chiefly manufactured	27,019,002	510,628,826	548,487,153	206,037,468	64,215,757	662,997,830
Totals, Mineral Origin	**36,515,389**	**691,987,786**	**779,604,946**	**252,807,645**	**311,257,942**	**996,955,871**
Mixed Origin						
Raw materials	Nil	2,271	15,831	Nil	Nil	Nil
Partly manufactured	64,151	3,719,756	3,895,954	7,818	1,221,653	1,240,651
Fully or chiefly manufactured	56,922,901	223,843,386	296,788,210	138,485,293	158,495,669	470,993,113
Totals, Mixed Origin	**56,987,052**	**227,565,413**	**300,699,995**	**138,493,111**	**159,717,322**	**472,233,764**
Recapitulation						
Raw materials	**1,456,295**	**310,067,257**	**428,783,163**	**250,370,120**	**390,612,658**	**858,314,183**
Partly manufactured	**15,015,585**	**36,553,551**	**93,697,916**	**121,973,926**	**357,433,510**	**535,931,080**
Fully or chiefly manufactured	**124,045,568**	**855,796,826**	**1,063,294,063**	**590,893,641**	**448,930,558**	**1,824,085,090**
Grand Totals	**140,517,448**	**1,202,417,634**	**1,585,775,142**	**963,237,687**	**1,196,976,726**	**3,218,330,353**

15.—Imports and Exports, by Groups, According to Purpose, 1945

Group and Purpose	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	$	$	$	$	$	$
Producers Materials						
FARM MATERIALS						
Fodders	Nil	3,324,661	3,343,743	3,630,052	76,814,511	93,283,513
Fertilizers	"	3,470,435	3,825,189	1,854,013	17,285,589	30,649,819
Seeds	52,554	1,308,194	1,512,615	2,466,060	7,338,108	13,772,280
Other	251,677	1,728,595	1,980,272	Nil	1,803,912	3,031,654
TOTALS, FARM MATERIALS	304,231	9,831,885	10,661,819	7,950,125	103,242,120	140,737,266
MANUFACTURERS MATERIALS						
Foodstuffs and beverages	102,925	5,421,232	7,006,687	163,349,684	128,797,382	475,892,133
Tobacco, smokers supplies	102,967	990,730	2,375,583	5,532,507	988	6,725,774
Textiles, clothing, cordage	41,565,638	95,331,996	174,599,951	1,593,697	4,323,833	13,393,677
Fur and leather goods	1,071,813	9,661,037	27,044,985	2,191,230	28,343,726	34,172,399
Sawmills	Nil	Nil	Nil	1,318,963	1,431,980	3,273,193
Rubber industries	101,057	12,518,840	13,562,799	29,738	9,244,488	9,319,242
Other manufacturers	14,429,824	243,190,881	311,352,868	99,235,206	523,603,254	714,240,972
TOTALS, MANUFACTURERS MATERIALS	57,374,224	367,114,716	535,942,873	273,251,025	695,745,651	1,257,017,390
BUILDING AND CONSTRUCTION MATERIALS	3,317,814	26,716,649	30,058,382	44,765,222	61,685,571	129,852,039
Totals, Producers Materials [1]	**61,006,544**	**404,707,796**	**577,717,895**	**326,050,160**	**861,891,753**	**1,529,217,632**
Producers Equipment						
Farm	320,172	51,458,033	52,320,286	4,504,249	22,149,772	34,802,341
Commerce and industry	7,186,964	162,170,207	170,307,159	39,326,804	22,519,100	104,824,776
Totals, Producers Equipment	**7,507,136**	**213,628,240**	**222,627,445**	**43,831,053**	**44,668,872**	**139,627,117**
Fuel, Electricity and Lubricants						
Fuel	179,665	114,694,170	115,990,719	6,243,399	5,937,479	23,397,056
Electricity	Nil	128,209	128,209	Nil	7,573,592	7,574,374
Lubricants	478	4,264,286	4,264,905	"	23,737	319,720
Totals, Fuel, etc	**180,143**	**119,086,665**	**120,383,833**	**6,243,399**	**13,534,808**	**31,291,150**
Transport						
Road	306,051	83,600,904	83,907,033	93,709,949	7,035,424	340,494,289
Rail	62	1,363,317	1,363,379	Nil	129,458	45,924,014
Water	125,982	4,770,457	4,897,352	354,250	199,882	12,727,823
Aircraft	450,106	17,801,505	18,251,923	23,270,728	82,562,662	108,152,016
Totals, Transport	**882,201**	**107,536,183**	**108,419,687**	**117,334,927**	**89,927,426**	**507,298,142**
Auxiliary Materials for Commerce and Industry						
Advertising material	78,911	1,347,216	1,439,493	Nil	Nil	Nil
Containers	478,960	9,370,740	11,142,091	1,553,766	1,284,152	8,601,577
Other	42,168	2,226,881	2,273,317	Nil	Nil	Nil
Totals, Auxiliary Materials	**600,039**	**12,944,837**	**14,854,901**	**1,553,766**	**1,284,152**	**8,601,577**

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[1] Totals include other items not stated.

15.—Imports and Exports, by Groups, According to Purpose, 1945—concluded

Group and Purpose	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	$	$	$	$	$	$
Consumer Goods						
Foods	86,018	82,182,480	152,104,468	276,518,939	74,842,611	490,183,467
Beverages	3,896,310	1,783,057	36,324,041	169,744	21,966,154	31,438,799
Smokers supplies	67,705	1,191,242	1,365,824	720,125	56,043	1,358,919
Clothing	3,653,415	5,949,909	10,524,652	8,573,604	2,882,725	29,566,209
Household goods	7,417,397	24,457,464	33,368,348	645,910	938,932	11,104,809
Jewellery, timepieces, etc.	1,796,721	4,175,268	13,620,222	259,166	310,319	1,118,453
Books, educational supplies, etc.	1,133,537	18,410,664	19,704,451	4,951,249	5,583,131	15,770,354
Recreation equipment, etc.	545,869	7,224,695	7,927,285	12,399	2,853,973	4,937,630
Medical supplies, etc	949,714	17,070,763	20,451,774	2,450,289	676,907	7,225,227
Other	522,548	2,436,788	3,131,625	154,969	41,022	3,658,058
Totals, Consumer Goods	**20,069,234**	**164,882,330**	**298,522,690**	**294,456,394**	**110,151,817**	**596,361,925**
Totals, Munitions and War Stores	**24,292,876**	**105,816,827**	**131,057,375**	**141,617,036**	**42,183,555**	**286,591,941**
Totals, Live Animals for Food	**Nil**	**13,422**	**13,422**	**Nil**	**1,292,163**	**2,020,002**
Totals, Unclassified	**25,979,275**	**73,801,334**	**112,177,894**	**32,150,952**	**32,042,180**	**117,320,867**
Grand Totals	**140,517,448**	**1,202,417,634**	**1,585,775,142**	**963,237,687**	**1,196,976,726**	**3,218,330,353**

PART III.—SUMMARY OF EXTERNAL TRANSACTIONS

Section 1.—Canadian Balance of International Payments*

Canada's special interest in a system of multilateral settlements is apparent from the structure of the Canadian balance of payments. Because of the existence before the War of free exchange markets, which provided channels of international settlement for the nations of the British Commonwealth and other overseas countries with the United States, it was possible for there to be a considerable amount of disequilibrium or "unbalance" in Canada's current accounts with the United Kingdom and the United States without any special problems of settling these balances arising. Triangular settlements such as those arising from the unbalanced state of the Canadian accounts with the United Kingdom and the United States were an integral part of the network of international commerce which had grown up over an extended period. The system of multilateral settlements made it possible to settle balances like those arising from Canada's dealings with its principal trading partners. But the War interrupted the operation of the system of multilateral settlements by creating conditions under which sterling was no longer freely convertible into United States dollars. In addition, the current accounts of the belligerent countries became distorted by wartime demands which produced greatly augmented current balances for which new methods of settlement had to be devised. In the case of Canada, the new conditions produced problems with respect to the balances of payments with both the Sterling Area and the Non-Sterling Area and the situation made exchange control necessary. Financial problems also developed arising out of the problem of the British scarcity of Canadian dollars to pay for munitions, food and other commodities which were so urgently needed for the prosecution of the War. Other exchange and financial problems arose from the Canadian shortage of United States dollars to pay for the capital equipment, materials and components required for war production.

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The nature of the problems introduced by the War necessitated the division of the Canadian balance of payments into two separate sections, one showing transactions with the Sterling Area, and the other showing transactions with the United States and other countries with convertibility exchange. Because of the absence of the free convertibility of sterling into United States dollars the disequilibrium in these two separate accounts between Canada and other countries has had to be met by various special means. The principal solutions of the wide disequilibrium in the account with the United Kingdom and the Sterling Area have been of a financial character. Arrangements were made between the two Governments for increasing the supply of Canadian dollars available to the Sterling Area and the direction of these into official channels. In the early years of the War, these methods were mainly of a capital type, involving repatriations and the accumulation of sterling, whereas later in the War when the disequilibrium widened to its peak the Billion Dollar Contribution and Mutual Aid to the United Kingdom were the chief methods of financing the British shortage of Canadian dollars. Mutual Aid expenditures on account of the Sterling Area countries to the end of 1945 amounted to approximately $2,175,000,000. Following the end of Mutual Aid the loan of $1,250,000,000 by the Canadian Government to the United Kingdom has been the principal means of financing the current deficit of the Sterling Area in Canada.

In the balance of payments with the United States and the United States dollar area, the initial adjustments to meet the Canadian shortage of dollars were of an administrative character. The introduction of exchange control and the control of exports of capital from Canada provided a means of conserving Canada's limited supply of United States dollars for the more essential purposes of the War. Similarly, Government restrictions were introduced in 1940 limiting Canadian expenditures in the United States for unessential travel and civilian luxury commodities. As the disequilibrium widened in Canada's current account with the United States, other measures directed towards expanding Canada's receipts of United States dollars were developed. The agreements entered into at Hyde Park in the spring of 1941 led to large United States purchases of munitions, military equipment, ships and raw materials in Canada. These expenditures developed rapidly after the United States entry into the War. Later during the War, there were exceptionally large Canadian current receipts from sales of grain to the United States and United States Government expenditures on defence in Canada. Another major source of United States cash arose from capital inflows from the United States to Canada. Throughout the War, there continued to be an appreciable liquidation of Canadian holdings of United States securities and, in 1942, there first appeared large inflows of capital for the purchase by United States investors of Canadian securities, particularly bonds and debentures. These capital inflows continued to be unusually heavy throughout the remainder of the War and contributed large amounts to the supply of United States exchange, although Canada's external foreign liabilities increased commensurably. There were also special receipts of gold and United States dollars in partial settlement of the British deficiency in Canada. By the end of 1945, Canada's official liquid reserves of gold and United States dollars amounted to $1,508,000,000.

Developments in 1945

While 1945 was a year of transition, the balance of payments for the year as a whole retained some of the general outlines characteristic of the later war years. The high level of economic activity had the effect of producing a record total of credits in the current account, but smaller external government expenditures on war account reduced current debits. As a result, the balance of credits on current account rose to $1,723,000,000, the highest level for any year in Canada's history. But, as the economic background following the end of the War was much different from that at the beginning of the year, some of the important changes occurring during the year are not apparent from annual summaries of the balance of payments. Heavy international transactions in the earlier part of the year while the War was continuing were instrumental in producing large annual totals.

The increase in total current account credits in 1945 occurred in exports to overseas countries other than the United Kingdom. Exports to both the United States and the United Kingdom were less in 1945 than in 1944, which was the peak year for both countries. Notable expansions occurred in exports to other Empire countries and to foreign countries overseas. The expansion in exports on account of these foreign countries increased sharply to a new record level as the result of shipments under export credits, UNRRA and military relief.

Transactions with the Sterling Area, 1945.—The current account deficit of the Sterling Area in Canada in 1945 of $1,220,000,000 compares with $879,000,000 in 1944, $1,216,000,000 in 1943 and $1,269,000,000 in 1942. Most of the change in 1945 originated in the sharp decline in Canadian overseas expenditures in the Sterling Area as total credits were slightly lower than in 1944.

Although total exports to the United Kingdom were lower than the peak level in 1944, exports of food expanded to a new record and exports of lumber and wood products remained close to the level of the previous year. Expenditures on account of munitions, including Mutual Aid, declined sharply after the first quarter of the year following the end of the European War and exports of non-ferrous metals were lower throughout the year as British stocks and other sources of supply were used. Following the end of the War, there was a considerable reduction in British expenditures on war services in Canada, declines occurring in expenditures for most purposes. The main group of Sterling Area expenditures to increase was exports to other Empire countries than the United Kingdom. There was also a significant increase in British expenditures on freight and shipping account, mainly reflecting larger earnings by the growing fleet of Canadian-owned merchant vessels.

The British supply of Canadian dollars from the more normal sources such as exports of merchandise to Canada and shipping services, and receipts of income on investments in Canada remained about the same in 1945 as in 1944. Canadian commercial imports from the United Kingdom were at about the same level in both 1945 and 1944. Imports from other Sterling Area countries were higher in 1945 than in 1944, while payments for freight and other services and interest and dividends to the United Kingdom were somewhat less in the aggregate.

The largest part of the Sterling Area current supply of Canadian dollars was provided by the payments from the Canadian Government to the United Kindgom for the expenses of the Canadian Forces overseas. These amounted to $696,000,000 compared with $1,085,000,000 in 1944, the decline in expenditures accompanying the end of the War, expenditures in the first quarter of the year being about $335,000,000 and dropping down to $77,000,000 in the fourth quarter.

Mutual Aid was again the principal means of financing the current account deficiency of the Sterling Area in 1945. The amount of Mutual Aid to Sterling Area countries was $838,000,000. Of this, $777,000,000 was for the United Kingdom and the remainder was distributed among Australia, India, New Zealand and the British West Indies. In addition, following the termination of Mutual Aid, there were interim advances to the United Kingdom in order to maintain the export of food amounting to about $164,000,000, advances to India to cover the purchase of locomotives, and to Australia.

Special receipts of United States dollars from the United Kingdom contributed $33,000,000 to the financing of the current deficit in 1945, this being part of an adjustment in connection with the United States dollar cost to Canada of Mutual Aid production for the United Kingdom. There was also some financing from Sterling Area sources arising from a decline in British official balances in Canada. There were large repayments on the $700,000,000 loan totalling $64,000,000 during the year. Canadian private repatriations of securities held in the Sterling Area totalled about $72,000,000, an amount considerably higher than private repatriations in earlier years during the War.

Transactions with the United States, 1945.—In the balance of payments with the United States there was again a small surplus on current account due to the continuation of some of the abnormal sources of large receipts which had been prominent also in 1944. The current surplus of $30,000,000 compares with $31,000,000 in 1944, the only other year in which this unusual development has occurred. There were sharp declines in two of the abnormal sources of United States expenditures in Canada—receipts from the sale of munitions and from the sale of grain. But there were smaller expenditures by the Dominion Government in the United States in 1945 than in 1944 when large special payments to the United States Treasury amounting to $280,000,000 on current account were made. Receipts from the sale of munitions were in the neighbourhood of $200,000,000 in 1945 compared with considerably more than $300,000,000 in 1944. Receipts from the sale of grain to the United States declined even more sharply, being approximately $100,000,000 in 1945 compared with about $300,000,000 in 1944. Exports of commodities to the United States other than munitions and grain were slightly higher in the aggregate than in 1944, and more than double the level of receipts from all exports to the United States in 1939, higher prices as well as larger volume contributing to some of the increase. United States Government expenditures on defence in Canada were much smaller than in the previous year, when they had contributed a substantial amount to current receipts. Net exports of non-monetary gold showed a further decline in 1945 amounting to only $96,000,000.

The most outstanding gain in other receipts was from the expenditures of United States travellers in Canada. While these increased very sharply, the balance of receipts on travel account increased only moderately since there was also a sharp increase in expenditures of Canadian travellers in the United States.

Canadian payments to the United States in 1945 for merchandise were approximately the same as in 1944, although imports of merchandise from the United States underwent many changes during the year. While gross imports declined appreciably, a large part of this decline occurred in imports of goods that are not purchased by Canada. Imports of lend-lease goods on United Kingdom account and United States Government free issues of aircraft engines and equipment imported in connection with aircraft being constructed for the United States declined sharply.

As there were larger payments for imports on Government account in 1945, imports through other channels were somewhat less than in 1944. Freight and transportation costs originating mainly from the movement of imports to Canada, although continuing to decline, were still large. Payments of interest and dividends to investors in the United States declined relatively moderately in the aggregate in 1945. Total dividends paid by Canadian companies to residents of the United States were considerably lower than in 1944, mainly because of reduced distributions by Canadian subsidiaries to parent companies in the United States.

Transactions with Other Foreign Countries, 1945.—The very sharp increase that occurred in exports to other foreign countries resulted mainly from the liberation of Europe and the heavy shipments in the latter part of the year to the Continent financed by Mutual Aid, export credits, UNRRA and cash received from European Governments. Total exports on the account of other foreign countries amounted to $569,000,000 compared with $176,000,000 in 1944 and $134,000,000 in 1938.

Exports to this group of countries directly financed by Federal Government expenditures totalled about $312,000,000. Mutual Aid to China, France and Russia contributed $102,000,000 of this, export credits $53,000,000, interim advances to countries arranging for credits $52,000,000, military relief $71,000,000 and the Canadian contribution to UNRRA of $34,000,000. There were also exports purchased by UNRRA with free funds and substantial cash purchases by European Governments. Commercial exports to other countries producing convertible exchange increased substantially in 1945. This private commercial trade was with the Latin American countries, some European countries and United States dependencies. There were appreciable gains in exports to practically every country included in this group. Imports from other foreign countries increased from approximately $89,000,000 in 1944 to $110,000,000 in 1945.

Capital Movements Between Canada and the United States Dollar Area, 1945.—Inflows of capital to Canada from the United States increased in 1945 even more than in the preceding three years of extraordinarily heavy inflows. Most of the inflows again took the form of sales by Canadians of outstanding Canadian and United States securities. The level in 1945 established a record for inflows of capital from sales of outstanding securities. The principal development in the security trade between Canada and the United States during the year was the very heavy United States demand for Canadian domestic bonds.

While the total of Canadian issues redeemed in 1945 was about the same size as in 1944, maturities were less and issues called for redemption were greater, many being refinanced by new issues sold in the United States. Other capital movements to Canada continued to be predominantly inwards, there being substantial inflows for direct investments, loans and advances and transfers into non-resident Canadian dollar accounts.

Capital payments being subject to restrictions imposed by exchange control continued to be, for the most part, for the redemption of securities or other debts. Although certain other exports of capital were permitted in 1945 as in 1944, the total amount of such transfers was relatively small. These transfers were mainly in connection with the extension of Canadian business activities outside of Canada. There were very large debit entries in the capital account reflecting the increase in official reserves of gold and United States dollars of $606,000,000.

Developments in 1946

In 1946, the volume of current transactions and the net balance of current credits were considerably less than in 1945, reflecting reconversion from the wartime period. The net credit balance of $458,000,000 was, nevertheless, much larger than in any other peacetime year. This balance includes $107,000,000 of exports financed as official contributions of relief. The remainder of the current balance, $351,000,000, was accompanied by capital transactions which acted towards reducing Canada's net debtor position during the year. But the disequilibrium in Canada's accounts with the Sterling Area and the countries receiving export credits was much greater than this as there was a large deficit in the current account with the United States. The record peacetime credit balance with overseas countries was financed chiefly by drawings by the United Kingdom of $540,000,000 on the new loan of $1,250,000,000, and by net export credits of $210,000,000 to foreign countries. The unprecedented current deficit of $603,000,000 with the United States was covered only to the extent of $237,000,000 by current receipts of convertible exchange from the United Kingdom and other overseas countries. The remainder of the deficit was met by a reduction of $263,000,000 in Canada's official reserves, and by capital inflows.

Transactions With the Sterling Area.—While many of the abnormal commodity movements, like shipments of munitions, naturally ceased at the end of the War, there remained unusual British demands for Canadian food and raw materials. Consequently, exports to the United Kingdom reached a peacetime record in 1946 of $626,000,000 even though they were much less in total than at the wartime peak. But, since 1946 was a year of reconversion for the British economy, commodities available in the United Kingdom for export were limited by prevailing shortages. The result was that Canadian imports from the United Kingdom valued at $138,000,000 in 1946, represented a considerably smaller volume than imports before the War.

There continued to be appreciable Canadian Government expenditures in the United Kingdom during the early part of the year on account of the Canadian Forces overseas which amounted to $73,000,000 during the year compared with $696,000,000 in 1945. Most important among the other current payments to the United Kingdom were interest and dividends of $54,000,000 paid to British investors, an amount sharply reduced by wartime repatriations. While there were payments to the United Kingdom for shipping services these were much less than British expenditures on inland freight in Canada on the large volume of exports, some of which were also carried on Canadian ships. British expenditures on war services in Canada declined sharply in 1946. Prominent among other current receipts from the United Kingdom were inheritances and emigrants funds. Normal exchanges of other services between the two countries resulted in the usual moderate net payments by Canada on their account. As a result of all current exchanges of commodities and services between Canada and the United Kingdom in 1946, there was a credit balance of $495,000,000 compared with one of $928,000,000 in 1945. Trade between Canada and other Empire countries which also customarily results in a credit balance further increased the shortage of Canadian dollars in the whole Sterling Area. This trade is now much larger than before the War and the disequilibrium in the current account with these countries in 1946 was $167,000,000 compared with $24,000,000 in 1937.

The drawings of $540,000,000 on the new loan to the United Kingdom were the principal means of financing the Sterling Area deficiency of Canadian dollars. There were also net interim advances to cover exports of $112,000,000 which were mainly cancelled under the terms of the Agreement on the Settlement of War Claims in March when the United Kingdom paid Canada $150,000,000 clearing away all outstanding war claims except the advances for air training of $425,000,000 which were cancelled under the terms of the Financial Agreement. Among the other financial transactions between the two Governments were repayments by the United Kingdom on the 1942 loan aggregating $89,400,000, leaving $471,900,000 of that loan outstanding at the end of 1946. The principal private capital transactions were redemptions of about $76,000,000 of Canadian securities owned in the United Kingdom, and net re-purchases of about $54,000,000 of Canadian securities held there.

Current Transactions with the United States.—The disequilibrium in the current account with the United States in 1946 was larger than in any other year in Canadian history as post-war demands for goods and services in the United States first became effective. The current deficit of $603,000,000 is much larger than the wartime peak of $318,000,000 in 1941, and $437,000,000 in 1929, the peak in the pre-depression period of prosperity. In the years immediately before the War, the deficit was much smaller, being $149,000,000 in 1938. The size of the deficit took on added significance since the normal pre-war sources of convertible exchange from trade with overseas countries have been temporarily reduced because of the general dollar shortage, and limited productivity overseas during the transitional period. The sudden re-emergence of the large deficit with the United States resulted from divergent trends in receipts and expenditures. While total current receipts of $1,575,000,000 contracted $165,000,000, current expenditures expanded sharply by $468,000,000 to the record level of $2,178,000,000. The principal decline in receipts was from the sale of munitions and grain, which declined more than other exports increased. But the sharp gain in expenditures was widely distributed, the large growth in the import total being accompanied by substantial increases in most of the other types of expenditures as well. The increases in imports were widely distributed as to commodities and a new peak was reached in the latter part of the year when there were better transportation conditions and when supplies of many commodities in the United States were increasing. Rising prices there also contributed to the growth in Canadian expenditures as well as the high level of incomes in Canada. There were also the effects of large accumulations of demands during the wartime period and the absence of overseas sources of supply which formerly were important to Canada.

The balance of payments of $66,000,000 on freight account with the United States was higher than in 1945 but less than wartime peaks when ocean transportation costs were higher. Payments of interest and dividends to the United States of $250,000,000 were the highest yet reached, net payments of $204,000,000 comparing with $150,000,000 in 1945. Dividend payments were at a new peak principally because of abnormally large payments by Canadian subsidiaries to parent companies in the United States. Miscellaneous current payments by Canada to the United States almost doubled in 1946 while miscellaneous current receipts were slightly lower. Expenditures on travel between Canada and the United States reached new peaks in 1946 but the rise in United States expenditures in Canada to $214,000,000 was offset by a rise of corresponding size in Canadian expenditures in the United States to $131,000,000 with the result that estimated net receipts of

$83,000,000 on travel account were close to net receipts in 1945. Influencing the expenditures in both directions were high levels of income and greater freedom of transportation after the period of wartime restraints and restrictions. Receipts from newly mined gold continued to be much less than in earlier periods when production was larger.

Transactions with Other Foreign Countries.—The major part of the large export balance with other foreign countries in 1946, was financed by export credits of about $210,000,000 and by shipments of relief and other official contributions of $102,000,000. The remaining transactions, including inland freight and shipping revenue and income from investments, resulted in a credit balance of $87,000,000. This credit balance provided convertible exchange for meeting part of Canada's deficit with the United States. Contributing to this source of exchange were transfers of free United States dollars by UNRRA of about $33,000,000 Canadian, to cover expenditures in Canada, United States dollars received from borrowing governments under the terms of export credits loans, and from private trade with these countries.

Capital Movements Between Canada and the United States Dollar Area.—Gold and United States dollars received from the United Kingdom and other foreign countries, of $150,000,000 and $87,000,000, respectively, were the means of meeting only part of the current deficit with the United States. The remaining amount was financed by transactions on capital account. The decline in official hard currency reserves was $263,000,000 (U.S.) leaving the Canadian holdings of gold and United States dollars at the end of 1946 close to $1,250,000,000. Net receipts from all other capital transactions were $103,000,000. Transactions in Canadian securities, in contrast to earlier years, lead to a net outflow of funds of $28,000,000 as redemptions of issues matured and called were greater than sales of outstanding Canadian securities to the United States which, although heavy in the first half of the year, were small after the revaluation of the Canadian dollar. There were, however, appreciable dollar receipts arising out of sales of United States securities by Canada and other capital inflows connected with United States direct investments in Canada, and increases in United States cash balances in Canada, which exceeded outflows for such purposes as direct investments abroad by Canadian businesses and the first subscription of about $6,000,000 in United States currency by Canada to the capital of the International Bank.

1.—Current Account Between Canada and All Countries, 1926-46

(Net Credits +: Net Debits −)
(Millions of Canadian Dollars)

Year	Current Receipts	Current Expenditures	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account	Year	Current Receipts	Current Expenditures	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account
1926.....	1,665	1,538	-	+127	1937....	1,593	1,413	-	+180
1927.....	1,633	1,643	-	−10	1938....	1,361	1,261	-	+100
1928.....	1,788	1,820	-	−32	1939....	1,457	1,331	-	+126
1929.....	1,646	1,957	-	−311	1940....	1,776	1,627	-	+149
1930.....	1,297	1,634	-	−337	1941....	2,458	1,967	-	+491
1931.....	972	1,146	-	−174	1942....	3,376	2,275	+1,002	+99[1]
1932.....	808	904	-	−96	1943....	4,064	2,858	+518	+688[1]
1933.....	829	831	-	−2	1944....	4,557	3,539	+960	+58[1]
1934.....	1,020	952	-	+68	1945....	4,635	2,912	+1,041	+682[1]
1935.....	1,145	1,020	-	+125	1946....	3,341	2,883	+107	+351
1936.....	1,430	1,186	-	+244					

[1] Excluding Mutual Aid and official contributions.

2.—Geographical Distribution of the Balance on Current Account Between Canada and Other Countries, 1926-46

(Net Credits +; Net Debits—.)
(Millions of Canadian Dollars)

Year	United Kingdom[1]	Other Overseas Countries[2]	United States[3]	All Countries	Year	United Kingdom[1]	Other Overseas Countries[2]	United States[3]	All Countries
1926.....	+58	+300	−231	+127	1937....	+135	+122	−77	+180
1927.....	−19	+257	−248	−10	1938....	+127	+122	−149	+100
1928.....	−21	+338	−349	−32	1939....	+137	+105	−116	+126
1929.....	−99	+225	−437	−311	1940....	+343	+98	−292	+149
1930.....	−106	+113	−344	−337	1941....	+734	+75	−318	+491
1931.....	−54	+85	−205	−174	1942....	+1,223	+58	−180	+1,101
1932.....	−14	+86	−168	−96	1943....	+1,149	+76	−19	+1,206
1933.....	+26	+85	−113	−2	1944....	+746	+241	+31	+1,018
1934.....	+46	+102	−80	+68	1945....	+928	+765	+30	+1,723
1935.....	+62	+92	−29	+125	1946 [4]...	+495	+566	−603	+458
1936.....	+122	+123	−1	+244					

[1] Excluding wheat exports diverted to other overseas countries, and exports of gold. [2] Including estimated wheat sold in European countries. [3] Including all net exports of non-monetary gold. [4] Subject to revision.

3.—Balance of International Payments Between Canada and All Countries, 1939-46

(Millions of Canadian Dollars)

Item	1939	1940	1941	1942	1943	1944	1945	1946[1]
A. Credits—								
Merchandise exports — after adjustment..................	906	1,202	1,732	2,515	3,050	3,590	3,657	2,398
Net exports of non-monetary gold........................	184	203	204	184	142	110	96	96
Tourist expenditures..........	149	104	111	81	88	119	165	219
Interest and dividends.......	57	52	60	67	59	71	76	74
Freight and shipping.........	102	138	185	221	288	322	340	287
All other current credits......	59	77	166	308	437	345	301	267
Totals, Current Credits...	1,457	1,776	2,458	3,376	4,064	4,557	4,635	3,341
Special Gold Transactions[2]...	2	248	–	23	143	55	33	150
Capital Credits..............	558	283	566	1,235	677	689	533	928
B. Debits—								
Merchandise imports — after adjustment.................	713	1,006	1,264	1,406	1,579	1,398	1,442	1,822
Tourist expenditures..........	81	43	21	26	36	58	83	135
Interest and dividends.......	306	313	286	270	261	264	253	312
Freight and shipping.........	119	132	167	228	294	252	222	210
All other current debits.......	112	133	229	345	688	1,567	912	404
Totals, Current Debits....	1,331	1,627	1,967	2,275	2,858	3,539	2,912	2,883
Special Gold Transactions[2]...	2	248	–	23	143	55	33	150
Capital Debits...............	694	471	1,063	1,341	1,354	737	1,222	1,282
Billion Dollar Contribution...	–	–	–	1,000	–	–	–	–
Mutual Aid[1].................	–	–	–	–	512	936	940	25
Contributions to UNRRA....	–	–	–	–	–	11	34	68
Military and Other Relief....	–	–	–	2	6	9	67	14
C. Net Balances—								
Merchandise trade — after adjustment.................	+193	+196	+468	+1,109	+1,471	+2,192	+2,215	+576
Net exports of non-monetary gold........................	+184	+203	+204	+184	+142	+110	+96	+96
Tourist expenditures..........	+68	+61	+90	+55	+52	+61	+82	+84
Interest and dividends.......	−249	−261	−226	−203	−202	−193	−177	−238
Freight and shipping.........	−17	+6	+18	−7	−6	+70	+118	+77
All other current transactions.	−53	−56	−63	−37	−251	−1,222	−611	−137
Totals, Current Account.	+126	+149	+491	+1,101	+1,206	+1,018	+1,723	+458
Special Gold Transactions[2]...	−136	–	–	–	–	–	–	–
Capital Accounts.............	–	−188	−497	−106	−677	−48	−689	−354
Billion Dollar Contribution...	–	–	–	−1,000	–	–	–	–
Mutual Aid[1].................	–	–	–	–	−512	−936	−940	−25
Contributions to UNRRA....	–	–	–	–	–	−11	−34	−68
Military and Other Relief....	–	–	–	−2	−6	−13	−67	−14
Balancing Item[3].............	+10	+39	+6	+7	−11	−10	+7	+3

[1] Subject to revision. [2] This represents gold or United States dollars received from the United Kingdom in part settlement of her deficiency with Canada, and used, in turn, to settle part of Canada's deficiency with the United States. [3] This balancing item reflects possible errors and the omission of certain factors that cannot be measured statistically.

4.—Balance of International Payments Between Canada and Empire Countries, 1939-46

(Millions of Canadian Dollars)

Item	1939	1940	1941	1942	1943	1944	1945	1946[1]
A. CREDITS—								
Merchandise exports — after adjustment	436	699	1,098	1,541	1,763	1,970	1,954	895
Tourist expenditures	9	6	3	2	1	2	2	4
Interest and dividends	5	3	5	7	5	9	8	9
Freight and shipping	43	76	119	127	148	169	183	132
War services	–	20	74	130	128	128	81	18
All other current credits	9	18	22	19	21	29	38	76
TOTALS, CURRENT CREDITS	502	822	1,321	1,826	2,066	2,307	2,266	1,134
Capital Credits	97	116	181	884	20	146	73	309
B. DEBITS—								
Merchandise imports — after adjustment	177	236	279	226	200	196	213	267
Tourist expenditures	13	3	3	2	2	2	2	3
Interest and dividends	80	76	68	51	52	56	54	55
Freight and shipping	39	36	36	49	47	33	34	32
Canadian overseas expenditures	–	29	97	191	499	1,085	696	73
All other current debits	17	23	33	38	50	56	47	42
TOTALS, CURRENT DEBITS	326	403	516	557	850	1,428	1,046	472
Special Gold Transactions[2]	2	248	–	23	143	55	33	150
Capital Debits	180	330	990	1,129	586	144	423	817
Billion Dollar Contribution	–	–	–	1,000	–	–	–	–
Mutual Aid[1]	–	–	–	–	503	834	838	5
C. NET BALANCES—								
Merchandise trade — after adjustment	+259	+463	+819	+1,315	+1,563	+1,774	+1,741	+628
Tourist expenditures	−4	+3	–	–	−1	–	–	+1
Interest and dividends	−75	−73	−63	−44	−47	−47	−46	−46
Freight and shipping	+4	+40	+83	+78	+101	+136	+149	+100
All other current transactions	−8	−14	−34	−80	−400	−984	−624	−21
TOTALS, CURRENT ACCOUNT	+176	+419	+805	+1,269	+1,216	+879	+1,220	+662
Special Gold Transactions[2]	−2	−248	–	−23	−143	−55	−33	−150
Capital Account	−83	−214	−809	−245	−566	+2	−350	−508
Billion Dollar Contribution	–	–	–	−1,000	–	–	–	–
Mutual Aid[1]	–	–	–	–	−503	−834	−838	−5
Balancing Item[3]	–	+43	+4	−1	−4	+8	+1	+1

[1] Subject to revision. [2] This represents gold and United States dollars received from the United Kingdom in part settlement of her deficiency with Canada, and used, in turn, to settle part of Canada's deficiency with the United States. [3] This balancing item reflects possible errors and the omission of certain factors that cannot be measured statistically.

5.—Balance of International Payments Between Canada and Non-Empire Countries, 1939-46

(Millions of Canadian Dollars)

Item	1939	1940	1941	1942	1943	1944	1945	1946[1]
A. CREDITS—								
Merchandise exports — after adjustment	470	503	634	974	1,287	1,620	1,703	1,503
Net exports of non-monetary gold	184	203	204	184	142	110	96	96
Tourist expenditures	140	98	108	79	87	117	163	215
Interest and dividends	52	49	55	60	54	62	68	65
Freight and shipping	59	62	66	94	140	153	157	155
All other current credits	50	39	70	159	288	188	182	173
TOTALS, CURRENT CREDITS	955	954	1,137	1,550	1,998	2,250	2,369	2,207
Special Gold Transactions[2]	2	248	–	23	143	55	33	150
Capital Credits	461	167	385	351	657	543	460	619

For footnotes, see end of table.

5.—Balance of International Payments Between Canada and Non-Empire Countries, 1939-46—concluded

Item	1939	1940	1941	1942	1943	1944	1945	1946[1]
B. Debits—								
Merchandise imports — after adjustment	536	770	985	1,180	1,379	1,202	1,229	1,555
Tourist expenditures	68	40	18	24	34	56	81	132
Interest and dividends	226	237	218	219	209	208	199	257
Freight and shipping	80	96	131	179	247	219	188	178
Canadian overseas expenditures	-	-	-	-	-	-	25	49
All other current debits	95	81	99	116	139	426	144	240
Totals, Current Debits	1,005	1,224	1,451	1,718	2,008	2,111	1,866	2,411
Capital Debits	514	141	73	212	768	593	799	465
Mutual Aid[1]	-	-	-	-	9	102	102	20
Contributions to UNRRA	-	-	-	-	-	11	34	68
Military and Other Relief	-	-	-	2	6	13	67	14
C. Net Balances—								
Merchandise trade — after adjustment	−66	−267	−351	−206	−92	+418	+474	−52
Net exports of non-monetary gold	+184	+203	+204	+184	+142	+110	+96	+96
Tourist expenditures	+72	+58	+90	+55	+53	+61	+82	+83
Interest and dividends	−174	−188	−163	−159	−155	−146	−131	−192
Freight and shipping	−21	−34	−65	−85	−107	−66	−31	−23
All other current transactions	−45	−42	−29	+43	+149	−238	+13	−116
Totals, Current Account	−50	−270	−314	−168	−10	+139	+503	−204
Special Gold Transactions[2]	+2	+248	-	+23	+143	+55	+33	+150
Capital Account	−53	+26	+312	+139	−111	−50	−339	+154
Mutual Aid[1]	-	-	-	-	−9	−102	−102	−20
Contributions to UNRRA	-	-	-	-	-	−11	−34	−68
Military and Other Relief	-	-	-	−2	−6	−13	−67	−14
Balancing Item[3]	-	−4	+2	+8	−7	−18	+6	+2

[1] Subject to revision. [2] This represents gold and United States dollars received from the United Kingdom in part settlement of her deficiency with Canada, and used in turn to settle part of Canada's deficiency with the United States. [3] This balancing item reflects possible errors and the omission of certain factors that cannot be measured statistically.

6.—Balance of Payments on Travel Account Between Canada and All Other Countries, 1926-46

(Net Credits +; Net Debits −.)
(Millions of Canadian Dollars)

Year	United States			Overseas Countries[1]			All Countries		
	Credits	Debits	Net	Credits	Debits	Net	Credits	Debits	Net
1926	140	70	+70	12	29	−17	152	99	+53
1927	148	72	+76	15	28	−13	163	100	+63
1928	163	72	+91	14	26	−12	177	98	+79
1929	184	81	+103	14	27	−13	198	108	+90
1930	167	67	+100	13	25	−12	180	92	+88
1931	141	52	+89	12	19	−7	153	71	+82
1932	103	30	+73	11	19	−8	114	49	+65
1933	81	30	+51	8	14	−6	89	44	+45
1934	96	36	+60	10	14	−4	106	50	+56
1935	107	48	+59	10	16	−6	117	64	+53
1936	129	54	+75	13	21	−8	142	75	+67
1937	149	65	+84	17	22	−5	166	87	+79
1938	134	66	+68	15	20	−5	149	86	+63
1939	137	67	+70	12	14	−2	149	81	+68
1940	98	40	+58	7	3	+4	105	43	+62
1941	107	18	+89	4	3	+1	111	21	+90
1942	79	24	+55	3	3	-	82	27	+55
1943	87	34	+53	2	3	−1	89	37	+52
1944	117	57	+60	3	3	-	120	60	+60
1945	163	81	+82	3	2	+1	166	83	+83
1946[2]	214	131	+83	7	4	+3	221	135	+86

[1] Includes Newfoundland. [2] Subject to revision.

Section 2.—The Tourist Trade of Canada*

The importance of the tourist trade as one of the invisible items in Canada's balance of international payments is shown in the tables at pp. 909-911. Being a source of foreign exchange, expenditures in Canada of travellers from other countries are comparable in their effect to exports of commodities in the balance of payments and, similarly, the expenditures of Canadian travellers in other countries are comparable to imports of goods. Currently, the tourist trade between Canada and the United States produces net credits to Canada of well over $80,000,000 per annum and tends to offset the customary adverse balance on merchandise account with that country.

The desire to travel is deep-rooted in mankind and while its earliest incentive was the search for new lands and products for the advancement of trade, modern travel is based rather on motives of education, curiosity, pleasure and health. Technological progress coupled with better roads and new means of transport, shorter working hours and holidays with pay as well as better wages, and particularly the automobile, have all combined to change international travel from a luxury for the few to a commonplace for the many. This is especially true in the Western Hemisphere where the flow of travel between the United States and Canada is unmatched by any two countries in the world.

Canada is singularly endowed with a great wealth of attractions to offer tourists—a vast panorama of beauty from east to west and from north to south, easily accessible by road, rail, boat or aeroplane and peopled by a friendly, hospitable population.

Tourist travel in Canada has become a great and remunerative "service" industry during the past quarter-century and caters to millions of "customers" annually. Its effects and benefits are widely diffused into almost every community across the country.

It is worthy of note that, while total receipts from foreign travellers in Canada naturally exceed Canadian expenditures on travel account abroad, the Canadian is, on a per capita basis, the most persistent border-crossing national in the world and his per capita expenditures abroad are relatively higher than even the American. During 1946, Canadians are estimated to have expended over $10 per capita on travel to the United States, while per capita expenditures of United States citizens on travel to Canada were only $1·50.

United States Travel Expenditures in Canada.—During the Second World War, the character of Canada's tourist trade was subject to a decided modification. Travel from overseas, which normally supplied about 10 p.c. of the tourist income, was reduced to minor proportions and Canada became more dependent on tourist travel from the United States to support the visitor industry. Canada's receipts from United States tourists took on a new importance in the nation's international accounts due to the shortage of United States dollars which arose early in the War. There was an unprecedented demand for United States exchange needed to meet essential expenditures in the United States for war purposes at a time when the Canadian supply of United States dollars was limited by the inconvertibility of sterling.

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* Prepared under the direction of C. D. Blyth, Chief, Balance of Payments Section, International Trade Statistics Division, Dominion Bureau of Statistics, Ottawa.

The most convenient method of measuring the volume of travel from the United States to Canada is by means of transport and while the actual number of bona fide tourists is difficult to ascertain among the more than 21,000,000 border crossings in a year such as 1946, it is possible to segregate the huge volume of short-term, local, and in-transit traffic and arrive at a fairly satisfactory evaluation of the tourist trade proper.

The expenditures of travellers from the United States in Canada were over $163,000,000 in 1945, a recovery of some 40 p.c. from the low level of the preceding year. Preliminary estimates for 1946, covering the first year of peace, indicate that United States tourist expenditures in Canada will have reached some $214,000,000. This remarkable recovery in dollar volume represents a new high record, and is more than double the average receipts from the same source in the war years 1940 to 1944.

A considerable part of the tourist traffic from the United States normally enters Canada by motor-car, and the non-production of new cars coupled with gasoline and tire rationing, had severely curtailed this type of traffic during the War. Traveller's vehicle permits, which are issued to United States cars usually for touring purposes, declined from 1,174,000 in 1941 to a low of 300,000 in 1943 but recovered to 860,000 in 1945. The total for 1946 exceeded 1,492,000—a new record.

During the war years, entries by other means of transport such as train, through-bus and aeroplane, increased considerably. The 10 p.c. premium accruing to United States currency served to encourage this movement, in addition to a somewhat lower price level in Canada and fewer shortages of certain commodities. The post-war trend indicates that the number of tourist passengers by bus and aeroplane has continued to advance while automobile traffic has increased sharply. There was a decline during 1946 in the use of rail facilities by tourists, but entries by rail are still well above pre-war levels.

The years 1945 and 1946 have given a striking demonstration of the resilience of the tourist trade and suggested the great economic possibilities of development in hotel and tourist accommodation, improved highways, national parks, and other attractions, coupled with widespread publicity at home and abroad.

Canadian Travel Expenditures in the United States.—The pattern and volume of Canadian travel in the United States during the war years was influenced by restrictive measures necessary to conserve the limited Canadian supply of United States currency for more essential wartime purposes. In July, 1940, virtually all Canadian pleasure travel involving the expenditure of United States dollars was eliminated and consequently Canadian travel in the United States declined to depression levels. After May, 1944, some modifications in the restrictions resulted in an increase of Canadian travel but it was not until the following May that United States funds were made available more freely in amounts sufficient for most normal travel expenditures. Thus in 1941, as a result of currency restrictions, expenditures of Canadian travellers in the United States receded to about $18,000,000 compared with $40,000,000 in 1940 and $67,000,000 in 1939. Recovery was gradual and by 1944 Canadian expenditures were estimated at $57,000,000 and, with the further easing of restrictions, rose to $81,000,000 in 1945. The year 1946 was one of very active movement to the United States by Canadians, despite the delayed production of new automobiles and tires. With the return of Canadian currency to parity with United States dollars early in July, 1946, the tourist movement of Canadians was probably accentuated, despite the generally higher cost of living and touring costs in the United States. Total Canadian tourist expenditures in the United States agregated $131,000,000 during the year, a new high in Canadian international expenditure on travel.

Canadian motor-cars remaining abroad for stays exceeding 24 hours have risen in number from fewer than 28,000 in 1943 to nearly 80,000 in 1945 and to over 167,000 in 1946. However, due principally to the non-production in Canada of passenger cars from 1942 to 1945, the pre-war volume of automobile touring in the United States by Canadians has not yet been regained. The number of Canadian travellers by bus, aeroplane and boat increased perceptibly in 1946 over the preceding year, while travellers by rail continued to represent a considerable portion of the traffic to the United States.

Travel between Canada and Overseas Countries.—Tourist travel involving ocean voyages virtually ceased under wartime conditions and expenditures of travellers from overseas countries were mainly by persons travelling on official or other business. Overseas travel account, which had shown a credit of $17,000,000 and a debit of $22,000,000 in a year such as 1937, shrank to a credit of $3,000,000 and a debit of $2,000,000 in 1945, but recovered to $6,600,000 and $4,400,000, respectively, in 1946. From 1926 to 1939, the average net debits on overseas travel account were in the neighbourhood of $8,000,000.

There is little possibility of an immediate resurgence to pre-war levels in the volume of overseas tourist travel to Canada due to the impoverished condition of Europe and Asia, as well as the limitations imposed by many countries on the use of currencies for touring purposes and, indeed, the shortage of passenger liners. However, a gradual recovery is anticipated during 1947 in the outward flow of Canadian tourists to overseas countries, principally to Great Britain and South America, as more facilities for travel overseas become available. As a result of increased immigration to Canada from Europe, in addition to the millions of friends which members of Canada's Armed Forces and Canadian products have made in recent years, the potential of overseas travel to Canada is large and the volume should regain or surpass pre-war levels as soon as currency and other conditions are restored to normal and shipping accommodation again becomes available.

7.—Expenditures of Foreign Travellers in Canada and Canadian Travellers Abroad, 1945 and 1946

Class of Traveller	1945			1946[1]		
	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada
	$'000	$'000	$'000	$'000	$'000	$'000
Travellers from and to overseas countries[2]	3,000	2,000	1,000	6,600	4,400	2,200
Travellers from and to the United States—						
Automobile	56,919	7,479	49,440	95,900	21,700	74,200
Rail	64,316	39,423	24,893	61,800	49,600	12,200
Boat	12,995	1,848	11,147	16,200	3,200	13,000
Bus (exclusive of local bus)	12,939	17,044	−4,105	16,000	28,500	−12,500
Aeroplane	5,599	4,107	1,492	10,300	8,800	1,500
Other (pedestrians, local bus, etc.)	10,586	10,991	−405	14,000	19,200	−5,200
Totals, United States	163,354	80,892	82,462	214,200	131,000	83,200
Totals, All Countries	**166,354**	**82,892**	**83,462**	**220,800**	**135,400**	**85,400**

[1] Subject to revision. [2] Includes travel between Canada and Newfoundland.

8.—Summary of Highway Traffic at Canadian Border Points, by Provinces, 1945 and 1946

Province or Territory	FOREIGN VEHICLES INWARD					
	Non-Permit Class Local Traffic		Traveller's Vehicle Permits		Commercial Vehicles	
	1945	1946	1945	1946	1945	1946
Prince Edward Island	Nil	Nil	Nil	Nil	Nil	Nil
Nova Scotia	"	4	33	82	"	"
New Brunswick	587,207	752,407	44,344	83,065	56,184	65,294
Quebec	131,881	173,148	138,215	277,641	18,584	21,631
Ontario	2,068,158	2,624,849	553,720	903,096	78,139	81,441
Manitoba	39,815	53,310	8,775	22,797	1,830	1,736
Saskatchewan	17,334	20,221	4,247	9,723	4,221	3,907
Alberta	6,840	12,243	3,045	16,522	1,808	3,237
British Columbia	41,102	59,776	107,506	178,595	5,298	5,836
Yukon	Nil	Nil	30	585	9	54
Totals	**2,892,337**	**3,695,958**	**859,915**	**1,492,106**	**166,073**	**183,136**
Percentage increase, 1946 over 1945	27·8		73·5		10·3	
	CANADIAN VEHICLES INWARD					
	Stay of 24 Hours or Less		Stay of Over 24 Hours		Commercial Vehicles	
	1945	1946	1945	1946	1945	1946
Prince Edward Island	Nil	Nil	Nil	Nil	Nil	Nil
Nova Scotia	"	"	"	"	"	"
New Brunswick	369,202	499,048	3,692	6,140	51,705	57,215
Quebec	141,947	198,296	21,909	37,641	22,139	26,552
Ontario	382,343	552,813	28,195	66,272	34,507	35,908
Manitoba	35,741	45,771	3,283	11,614	3,976	4,206
Saskatchewan	32,606	35,072	2,826	7,271	3,231	5,497
Alberta	10,008	17,208	1,139	3,518	5,002	6,402
British Columbia	99,955	202,486	18,910	34,741	12,442	13,890
Yukon	Nil	Nil	Nil	Nil	Nil	Nil
Totals	**1,071,802**	**1,550,694**	**79,954**	**167,197**	**133,002**	**149,670**
Percentage increase, 1946 over 1945	44·7		109·1		12·5	

Tourist Information.—Tourist information is supplied generally by the Canadian Travel Bureau, Ottawa, while detailed information on the National Parks and historic sites may be obtained from the National Parks Bureau, Department of Mines and Resources, Ottawa. For advice regarding specific provinces or particular cities or resorts, the tourist may apply to the provincial or municipal bureau of information concerned or to the railway or bus agency whose route traverses the locality.

The following Provincial Tourist Bureaus or Branches welcome inquiries:—

Prince Edward Island—Prince Edward Island Travel Bureau, Charlottetown, P.E.I.
Nova Scotia—Nova Scotia Bureau of Information, Halifax, N.S.
New Brunswick—New Brunswick Government Bureau of Information and Tourist Travel, Fredericton, N.B.
Quebec—Quebec Tourist and Publicity Bureau, Quebec, Que.
Ontario—Ontario Department of Travel and Publicity, Toronto, Ont.
Manitoba—Manitoba Travel and Publicity Bureau, Winnipeg, Man.
Saskatchewan—Provincial Tourist Branch, Regina, Sask.
Alberta—Provincial Publicity and Travel Branch, Edmonton, Alta.
British Columbia—Government Travel Bureau, Victoria, B.C.
Northwest Territories and Yukon—Department of Mines and Resources, Ottawa, Ont.

Several provinces maintain tourist reception centres at the chief border ports to offer information and advice. Each place of importance maintains its own local tourist bureau and, in addition, the Board of Trade and information offices of bus and local transportation lines are on hand with reliable information on local matters.

CHAPTER XXIV—PRICES*

CONSPECTUS

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For purposes of statistical analysis, commodity prices are usually divided into two principal groups, wholesale prices and retail prices. The term 'wholesale' is not used literally, and primary producers, factory and jobbers quotations, as well as actual wholesale prices, are often included in this group. Markets in which this type of price is quoted are usually well organized, and are frequently very sensitive and responsive to changing business and monetary conditions. Wholesale quotations are preferred, therefore, for sensitive index numbers of prices designed to reflect price reactions to economic factors.

Retail prices may be strongly influenced by local conditions and are less sensitive. There is ordinarily a lag of several months between this type of quotation and its wholesale counterpart. Retail prices are important from a statistical point of view, however, because they indicate changes in living costs and, along with measurements of income, show fluctuations in the economic well-being of the community.

ACTIVITIES OF THE WARTIME PRICES AND TRADE BOARD, 1946-47†

The activities of the Wartime Prices and Trade Board up to the end of 1945, in controlling prices and promoting an adequate supply and orderly distribution of essential goods and services, are described in previous issues of the Canada Year Book. The present article deals with developments in 1946 and the first three months of 1947, and describes the activities and problems of the Board in the program of orderly readjustment to post-war conditions.

Changes in the controls over the distribution of goods in short supply are described in the Chapter on Domestic Trade (pp. 757-763). A more comprehensive account of the Board's activities may be found in its five Annual Reports (King's Printer, Ottawa).

Price Control.—During the war years the stabilization program had been very successful in holding in check strong inflationary forces. The threat of disorderly price advances and hence the need for price control persisted well into the transition period because of continued shortages, many of them severe and world-wide in scope, and strong pressure from high prices in other countries. The speed with which controls could be discontinued was, of course, largely dependent upon the supply situation. While the total supply of peacetime goods increased, there was still a scarcity of many items. Canada's staple products were much in demand abroad as well as at home and imports of certain essentials such as sugar, vegetable oils, tin, and cotton fabrics, continued to be restricted by external shortages. The loss of production resulting from industrial disputes in both Canada and the United States further intensified shortages of some lines such as automobiles, durable household goods and certain building materials during a considerable period in 1946.

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* Except as otherwise credited, the sections of this Chapter have been revised under the direction of H. F. Greenway, Director, Labour and Prices Division, Dominion Bureau of Statistics, by F. H. Leacy, Acting Chief, Prices Statistics.

† Prepared in the Research Division, Wartime Prices and Trade Board, Ottawa.

The authority to continue necessary price and supply controls for a period of approximately one year was embodied in the National Emergency Transitional Powers Act which came into force Jan. 1, 1946. A later amendment extended this authority until Mar. 31, 1947 when it was further extended until May 15, 1947, pending the introduction of new legislation concerning the continuation of certain emergency powers.

While price control continued to be necessary for many important goods and services, as time went on a growing number of items were released from control. The initial step in the decontrol of prices was taken in February, 1946, and others followed in the spring months. A number of subsidies were also removed or reduced during the first half of that year. Further action in these directions was delayed as a result of shortages, partly stemming from the industrial disputes in the United States and Canada, and partly as a result of the confused price situation arising from the rapid removal of price controls in the United States after the end of June, 1946. By early 1947, however, production had improved substantially and the general economic situation was such as to permit a further major step in decontrol of price ceilings. At that time, the list of goods subject to price ceilings was narrowed down largely to items of basic importance in living and production costs and subsidies had been reduced until, with few exceptions, they were confined to certain essential items of food, clothing and fuel.

The Government's approach to price control itself had been adapted to the changing conditions of the post-war period. The wartime concept of holding rigorously to the price ceiling line was replaced by a policy of orderly readjustment to the changed conditions of the post-war. Greater flexibility was essential and the impact of higher costs at home, and high prices abroad, had to be increasingly recognized in the price level. The use of subsidies on an expanding scale as an alternative to price increases would have been quite inconsistent with the objective of planned decontrol and the return to a free price structure and, accordingly, subsidies were gradually removed or reduced. A substantial number of important price adjustments occurred during the period, some of them the result of accumulated cost increases which, with the loss of war contracts, could no longer be absorbed under existing ceiling prices. Others were the result of subsidy reduction and removal and of higher prices for imported goods. Still others reflected increased labour and material costs. A number of these adjustments reflected a combination of these influences.

Financial need continued to be the main criterion for price relief though other considerations had to be given more weight than formerly. There was a somewhat larger element of "incentive" pricing mainly in the sphere of farm products and building materials in view of the urgent necessity of obtaining increased output. In the case of some commodities normally exported in large volume, consideration was given to the fact that domestic prices were much below export prices as well as to the financial position of the producers concerned.

With the growing number of price adjustments at the manufacturing level during 1946, it became increasingly difficult to deal individually with the increases required at distributive levels. It was necessary, therefore, to establish standard methods of controlling the resultant price increases at wholesale and retail levels. The practice was usually to establish ceiling prices by setting maximum wholesale and retail markups rather than specific ceiling prices. This type of markup control was applied to a wide range of items including leather and textile goods, fabricated metal items and durable goods and, in November, 1946, was extended to certain staple food items.

The higher prices prevailing abroad were a source of many problems of price control in Canada. Some revision in the pricing policy with respect to imported goods was necessary to facilitate the re-establishment of normal trading relationships. A more flexible system of import pricing on a markup basis was inaugurated in February, 1946, and extended in scope in July, 1946. In the latter month, the Canadian dollar was restored to parity with the United States dollar which, at that time, had the effect of reducing the cost of imports by approximately 10 p.c. This relieved some of the pressure on the price ceiling exerted by higher external prices but its effects were more than offset by later price increases in the United States and world markets.

Price Adjustments.—During 1946 and early 1947 there were a considerable number of important price adjustments. Many of these were the result of decontrol measures—the removal or reduction of subsidies and trading losses; these are described in the Section on subsidies. Apart from the subsidy changes, the chief factor in price adjustments during this period was the effect of higher labour and material costs. Thus, price increases were authorized on meals, rubber footwear, work clothing, radios, furniture, electric refrigerators, wood and coal stoves, warm-air furnaces and motor-vehicles. Several price adjustments, such as those on copper, lead and zinc, and pulp and paper products, gave consideration to the wide differentials between domestic and export prices as well as to the financial position of the producers concerned. Other price increases, such as those on butter and beef, were authorized in an effort to secure needed production. Price adjustments on a number of construction products contained an element of this "incentive" pricing. A few of the important price adjustments during the period* are described below.

In January, 1947, increases were authorized on the prices of meals containing meat, fish, poultry, or eggs, served in restaurants, hotels and other public eating places. The accumulation of increases in food, labour and other costs had carried operating expenses to a point where higher prices were necessary to maintain the standard of meals.

Several adjustments in beef prices were necessary to secure an adequate supply. An acute market shortage of the higher grades of beef became apparent in the early spring of 1946. To relieve this situation by encouraging a heavier flow of cattle to market, wholesale ceilings on carcasses grading "red" or "blue" were temporarily suspended in the latter part of May, 1946. This permitted buyers to pay more for cattle but left retail beef ceilings undisturbed, and resulted in improved supplies of beef. It was impracticable, however, to maintain ceilings indefinitely at retail without a measure of control at the wholesale level. Wholesale ceiling prices were reimposed in July, 1946, therefore, and maximum prices on the higher grades of beef were raised to establish a more satisfactory price relationship between top and lower grades of beef and also to improve distribution. In the spring of 1947, adjustments on top-quality beef were again necessary to secure adequate supplies in the months when marketings are usually light.

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* The important increases on iron and steel, and on farm machinery in April, 1946, are described in the Canada Year Book, 1946, at p. 853.

In April, 1946, maximum wholesale prices of pork carcasses were raised in line with the increased United Kingdom contract price and ceiling prices of all pork products were adjusted. At the same time, retail pork cuts were standardized and uniform maximum prices established, replacing the previous over-all carcass markup. Prices of pork products were again raised in January, 1947, following a further increase in the United Kingdom bacon contract price. These adjustments, for the first time, gave some recognition to past increases in costs of labour and materials in the meat-packing industry.

Higher maximum prices were authorized on copper, lead and zinc in January, 1947, thus reducing the spread between domestic and export prices. Costs of producing these metals had increased and, at the same time, much expanded domestic demand had reduced the proportion of exports so that producers were unable to take advantage of the higher prices prevailing in external markets to the same extent as they otherwise could have done. The increases authorized on copper, lead and zinc were reflected in appropriate price adjustments for users of the metals.

There were a number of price adjustments on wood products necessitated by higher costs of production and inadequate output of some lines. In April, 1946, an increase of 8 p.c. was authorized in the mill and wholesale prices of softwood and hardwood lumbers. Retail ceiling prices remained unchanged and the adjustment, therefore, placed retailers in the same position with respect to margins as they had been in prior to May, 1945, when the 8 p.c. sales tax was removed on lumber and other building materials. Other items on which price increases were authorized during the year included hardwood flooring, red cedar shingles, doors, door and window frames, and boxes and shooks.

In October, 1946, higher maximum prices were authorized on coal produced in Western Canada to enable operators to meet wage increases in the western mines.

Import Pricing.—The policy with respect to the pricing of imported goods was substantially changed during 1946. This revision was necessary because prices and costs in many countries had risen so much in wartime as to put them seriously out of line with Canadian ceilings. A strict application of basic-period ceilings might have operated to exclude goods from importation and thus interfered with the establishment of a normal flow of trade. In January, 1946, therefore, a new policy was adopted to facilitate the importation of goods from certain designated countries which had suffered particularly in the War. Under the new policy, goods from these countries were priced on the basis of laid-down costs plus a somewhat restricted markup. Goods eligible for subsidy or bulk purchased were not affected by this new procedure. A similar system was used in pricing certain individual items such as imported farm machinery and imported automobiles, even when imported from countries not included in the designated list.

Later in the year the new pricing procedure was extended to goods from all countries. The growing volume of goods becoming available from the United States and other countries made increasingly difficult the maintenance of basic-period pricing which, in addition to possible effects in restricting imports from these countries, involved a heavy burden of administrative work in setting prices for new goods. In July, 1946, therefore, cost plus pricing was applied to goods from all countries. Schedules of standard markups were established for importers and distributors, thus eliminating the need for individual fixations. These markups were, in most cases, somewhat smaller percentage-wise than the normal markups; the principle was to establish markups which were approximately the same as the dollar and cent margins prevailing prior to the War. The new import-pricing policy did not apply to certain foods or to goods eligible for subsidy.

Subsidies.—The policy of the Government with respect to subsidies was to remove them as promptly as was consistent with an orderly readjustment of the price structure to the realities of post-war conditions. In putting this policy into effect, a number of factors had to be considered. The process had to be a gradual one since sudden or very rapid removal of all subsidies at a time when world prices were high and uncertain and when inflationary pressures remained great would have been quite inconsistent with orderly readjustment. Subsidy reduction was, therefore, considered in relation to the general developments in the Canadian price level and in relation to the particular consequences in the existing circumstances of the removal or reduction of the subsidy under review. Another very important factor, particularly in connection with the subsidies on some imported materials, was the market position of the commodity concerned. If current prices seemed unduly high, as was sometimes indicated by a lower level of future prices, there was a disposition to postpone or limit removal of subsidies until the outlook became somewhat clearer. In some cases where market conditions were obscure but the subsidized price was clearly low in relation to reasonable expectations, subsidies were reduced but not removed.

The problem of the appropriate timing of subsidy removal was complicated during 1946 by economic developments both abroad and at home—the abandonment of price control in the United States, rising world prices, and severe shortages resulting from industrial disputes. Thus, while the general trend was strongly in the direction of subsidy removal during the past year, there were a number of instances in which rates of subsidy increased and there were a few cases in which new subsidies were paid. Special subsidy arrangements with respect to steel were developed in an effort to meet the shortages resulting from industrial disputes in the steel industries of both Canada and the United States.

However, many subsidies were eliminated during 1946 and early 1947, others were substantially reduced and the whole field in which subsidies were payable was greatly restricted.

The field of import subsidies was further restricted by a revision in the procedure for establishing eligibility for subsidy. Early in 1946, the former approach to import subsidies, under which commodities were broadly considered eligible for subsidy unless specifically declared ineligible, was abandoned. In its place a positive list of items eligible for import subsidy was announced. This list was subject to a continual paring-down process throughout the year, with the result that by early 1947, the area of subsidy payments had been very substantially narrowed.

Throughout the period of price control the Board has, through the Commodity Prices Stabilization Corporation, frequently used the technique of bulk purchasing sometimes involving the absorption of a trading loss as an alternative to a subsidy arrangement. During 1946 and early 1947, a number of bulk purchasing arrangements were discontinued in line with the general principles applying to subsidy reduction. Potential trading losses on other bulk purchasing operations were reduced or eliminated by raising Canadian selling prices by appropriate amounts.

One of the major steps in subsidy removal was the discontinuation of subsidies on fluid milk, concurrently with the restoration to the provinces of jurisdiction over milk prices. The consumer milk subsidy, introduced in December, 1942, as part of the program aimed at arresting the continuing rise in the cost of living, had resulted in a reduction of 2 cents per quart in the price of milk to the consumer. Removal of the subsidy in June, 1946, was accompanied by a price increase of the same amount. In October, 1946, the remaining subsidy on fluid milk, that paid producers through the Department of Agriculture, was withdrawn. When this action was taken, milk prices were increased by the provincial Milk Boards in amounts varying between provinces and ranging from 1½ cents to 3 cents per quart. Many of the increases were greater than the equivalent of subsidy which represented about 1½ cents per quart. At the same time, the subsidy of 30 cents per hundredweight of milk entering into the manufacture of concentrated milk products, which was also paid through the Department of Agriculture, was removed, and the Board authorized correspondingly higher ceilings on evaporated milk, condensed milk and milk powder.

The important textile subsidies were sharply reduced and in some cases completely eliminated. The first step was taken in the early months of 1946 when subsidies on most imported raw wools were discontinued, those on domestic worsted yarns and fabrics cancelled and the subsidies on imported yarns and fabrics decreased by corresponding amounts. The subsidy on imported raw cotton was reduced in March, 1946, though the expected savings were offset by sharp increases in the cost of cotton. Finally, in January, 1947, all remaining wool subsidies were discontinued and in the following month the raw cotton price, above which subsidy would be paid, was again raised by a substantial amount. The higher cost resulting from these subsidy changes had to be offset by price increases which extended down to the consumer level, though the adjustments on clothing and manufactured goods were delayed somewhat to allow for disposal of subsidized inventories.

The removal of subsidies on petroleum was completed in January, 1947, with the discontinuation of payments on crude oil imported into the Prairie Provinces, concurrently with the release from price control of all petroleum products except gasoline and tractor distillate.* Crude oil imported into other parts of Canada had not been eligible for subsidy since September, 1945.

A considerable number of food items in addition to fluid milk were affected by subsidy changes. Among the more important of these were soap and shortening for which basic-period ceilings had been maintained by the payment of subsidies on the basic materials. In February, 1947, the subsidy payments on the domestic constituents of these products were practically eliminated while those on imported materials were reduced. This entailed price increases on soap, shortening, salad and cooking oils. In the case of canned fruits and vegetables, subsidies paid to growers of crops for canning and those paid to producers were discontinued and a similar dual subsidy arrangement for jams and jellies was terminated. The subsidy on imported Barbados molasses was reduced in March, 1946, and completely eliminated a year later. Certain corn products, dried beans, canned salmon, coffee and dried fruits were also affected by subsidy reduction or removal in 1946 or by reduction in trading losses in cases where the goods were bulk purchased.

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* Ceiling prices were suspended on these items, Apr. 1, 1947.

At the beginning of June, 1946, subsidy payments and bulk trading losses on fertilizers were discontinued and prices restored to approximately the level of those prevailing in the basic period. However, some subsidies on fertilizer material for the Maritime Provinces continued to be paid by the Department of Agriculture. In March, 1947, the substantial subsidy paid on sisal fibre to maintain basic period prices for binder twine was discontinued.

The trading loss on antimony was eliminated in January, 1947, by raising the resale price to domestic users to the level of the purchase price which had risen substantially. In the following month similar action was taken with respect to tin.

Price Decontrol.—The area of price control was substantially restricted during 1946 and early 1947. The first step in the actual decontrol of prices was taken in February, 1946, when ceiling prices were suspended on an experimental list of items. For the most part, these items were of comparatively minor significance in family and business expenditures and, moreover, were not expected to show serious price increases.

In the following months, other items were freed from the price ceiling and there were two important suspensions in May. In that month, most types of capital equipment used in industry and distribution were released from control. The prices of capital equipment do not immediately affect prices of consumer goods. In addition, the task of maintaining price control on items of capital equipment had been very difficult because of their variety and varied specifications. Manufacturers' ceiling prices on newsprint were removed in May, subject to the understanding that Canadian prices would not be raised above the level that would maintain the historic differential between newsprint prices in the United States and Canada.

In July, 1946, concurrently with the restoration of the Canadian dollar to parity with the United States dollar, a further important step in decontrol was taken and, at the same time, the positive method of specifying those goods and services remaining under price control was adopted. A specific list of all the goods and services still subject to price ceilings was issued and the initial method of listing the items released from control was abandoned. While a large number of items were released from price control as a result of this action, maximum prices still applied to almost all articles of importance in the normal household budget, including nearly all food, clothing and fuel as well as the chief items in costs of production including industrial materials and most components and farmers' and fishermen's supplies.

Further steps in the decontrol of prices were delayed by adverse developments, including the termination of price control in the United States and the interruption of production by industrial disputes in both Canada and the United States. However, by the turn of the year, the supply situation was improving substantially as a result of rapidly increasing production. In January, 1947, therefore, many items were released from the price ceiling. The list of goods and services still subject to price control were restricted largely to items of basic importance in living and production costs. In announcing this further step in orderly decontrol, the Minster of Finance in his Statement on Price Control, Jan. 11, 1947, outlined improvement in supplies and administrative problems as reasons behind the choice of items released from price control. He also added that "For the majority of the items being de-controlled, significant price increases are not anticipated. In some cases, price advances will occur, though in most of these instances increases could not have been avoided even if control had been maintained".

Rentals and Shelter.—The shortage of housing accommodation became more acute in 1946, in spite of the large volume of new construction during the year. In these circumstances it was necessary to maintain control of rents and associated eviction controls and throughout 1946 the regulations respecting housing accommodation remained substantially unchanged. Several important steps toward the decontrol of commercial accommodation were taken early in 1947.

Commercial Accommodation.—Throughout 1946, eviction control on commercial accommodation was administered in accordance with a code issued in November, 1945, to permit those changes in leasehold arrangements that were needed to promote greater employment and enterprise. There was only one revision during the year in the regulations respecting commercial accommodation. In August, 1946, provision was made for five-year leases for commercial accommodation (which leases had been exempted from rent control in December, 1945), to contain provision for termination before the end of the five years on notice by the tenant.

In 1947, commercial accommodation was affected by changes in both maximum rental regulations and eviction controls. In March, a measure of financial relief was extended to landlords of commercial accommodation by authorizing a 25 p.c. increase in maximum rentals provided a two-year extension of the lease was agreed upon by landlord and tenant. If the tenant, however, did not accept the proffered lease within thirty days, he might be dispossessed under provincial law and the accommodation then became free of rent control. If the two-year extension was arranged, the lease was binding for the full term upon the landlord but might be terminated by the tenant upon thirty days notice. Space let under this special two-year lease is released from rent and eviction control upon the expiration of the lease.

A further amendment released from maximum rental regulations any three-year lease made on or after Mar. 1, 1947, by a landlord and the tenant in possession. However, such a lease could not contain provision for prior termination by the landlord.

Changes made in eviction controls at this time also affected sub-tenants who previously had enjoyed the same security of tenure as those tenants who held possession under lease with a landlord. After March, 1947, a landlord was permitted to recover possession of commercial accommodation in accordance with provincial law if the lessee-tenant was no longer in possession of the accommodation.

Finally, all commercial accommodation that was untenanted on Mar. 1, 1947, or later became untenanted, was exempted from the application of rent and eviction controls. This included new buildings as well as those not previously rented.

Housing Accommodation.—There were no fundamental changes in the regulations respecting housing accommodation in 1946. Eviction controls on shared accommodation were relaxed slightly in August, 1946, by removing the restriction that prohibited notices to vacate terminating in the winter months.

In March, 1947, there were a number of other revisions in eviction controls affecting housing accommodation. Steps were taken to provide relief to those landlords who had incurred particular hardships as a result of the freezing of leases in July, 1945. The regulations in question had suspended the right of a landlord to give notice to vacate on the grounds that the accommodation was required for himself or for members of his immediate family. Persons who had purchased housing accommodation prior to Oct. 31, 1944, were in a position to give the required six months notice to obtain possession of the accommodation before July 25, 1945. However, on the customary May-to-May periodic lease, persons who purchased houses after Oct. 31, 1944, could not have served a notice which, under the regulations would have become effective before May 1, 1946, and any such notices were frozen as a result of the action taken in July, 1945. It was felt, therefore, that some relief should be given such landlords and in March, 1947, the regulations were amended to permit landlords of housing accommodation purchased between Nov. 1, 1944, and July 25, 1945, to apply for permission to recover such accommodation. The tenant might oppose the application and the Court of Rentals Appeal in making a decision would give consideration to the relative needs of the landlord and the tenant. If the landlord's application were granted, the housing accommodation could be recovered in accordance with provincial law, subject to the provision that at least three months notice to vacate be given.

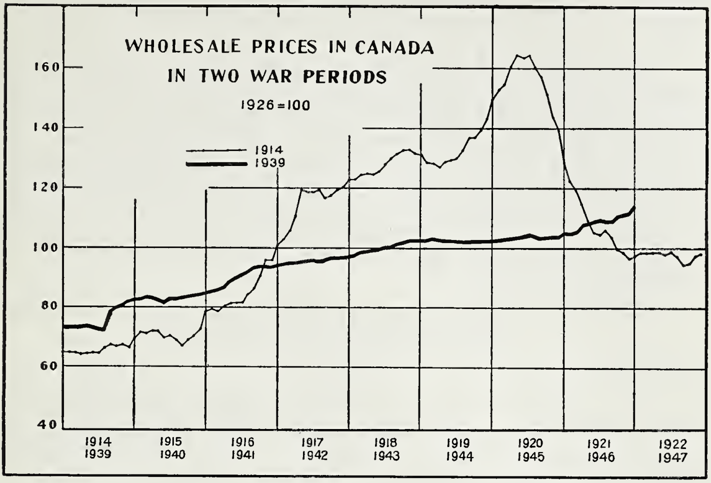
A further change in March, 1947, provided for the recovery, in accordance with provincial law, of farm houses or other dwelling places on property being used for agricultural purposes, if the accommodation had been let separately from the real property but was now needed for its efficient operation. During the war years, a considerable number of farms had been abandoned due to shortage of labour and the dwelling places had been let separately as housing accommodation. However, the time had come when owners of these farms were ready to put them back into operation and it was essential that they be permitted to regain possession of the attached housing accommodation.

Property occupied by sub-tenants was also affected by the revision of eviction controls. After March, 1947, a landlord was permitted to recover possession of housing accommodation if the tenant with whom he made the lease had ceased to occupy the premises as a personal residence for a period of more than five months.

Accommodation in holiday resort boarding houses and hotels was released from the application of maximum rental regulations on Mar. 1, 1947. However, rent control continued to be applicable to any seasonal accommodation, such as summer houses and tourist cabins, being used as permanent housing.

Section 1.—Wholesale Prices of Commodities

Wholesale price index numbers in Canada cover the period dating from Confederation in 1867. An intermittent decline characterized the first 30 years of this interval, followed by a gradual advance for a period of 16 years prior to the outbreak of war in 1914; from an average of 43·6 in 1897, the general wholesale index (1926 = 100) advanced without appreciable interruption to 64·4 in July, 1914. By the end of the War in November, 1918, this index had reached 132·8, and it continued upward to a post-war inflationary peak of 164·3 in May, 1920. The subsequent deflationary period lasted about two years, and between 1922 and 1929 price levels remained in comparative stability. Annual averages in this interval held between a high of 102·6 for 1925 and 95·6 for 1929. For the four years following 1929, depressionary influences were so severe that prices fell to the level of those of 1913. In February, 1933, the wholesale index touched an extreme low of 63·5 before turning upward again. Irregular recovery then continued until 1937; but the highest point reached, 87·6 in July, 1937, was substantially below the



1926 average. The collapse of the wheat market in 1938, along with fairly general depression in other markets, carried wholesale price levels just prior to the outbreak of war in 1939 down to about 11 points above the 1913 level. The August, 1939, index of 72·3 marked the extreme low of a two-year decline. The movement of prices prior to the outbreak of the Second World War was quite different, therefore, from that which preceded the First World War. The relatively low level of prices in August, 1939, probably influenced the sharper initial advance at the outbreak of war. However, during 1940, price levels steadied and showed no sign of a steep increase until 1941. By that time, great expansion in wartime production had made serious inroads into stocks of nearly all basic commodities and, at the end of 1941, wheat remained the only important commodity for which stocks exceeded predictable requirements. The introduction of general price control in December, 1941, followed a year in which wholesale prices had advanced 11·0 p.c. as compared with 3·1 p.c. in 1940. The effectiveness of control is indicated by the fact that percentage increases in wholesale prices amounted to only 3·7 and 5·7 for the years 1942 and 1943, respectively, while the December, 1944, index remained the same as the December, 1943, figure. The December, 1945, index of 103·9 was 11·1 p.c. above that for December, 1941, when price control became generally effective. By that time, the gradual removal of wartime price controls had been commenced.

The general wholesale price index rose from 103·6 to 112·0, an increase of 8·1 p.c. in the nineteen months between V-E Day in May, 1945, and December, 1946. The rate of increase was greater toward the end of the period and further increases were expected after Jan. 15, 1947, when the Prices Board restricted price control to listed articles only, removing it on all others. In relation to farm products, the increase in prices was greater from 1939 to 1946 than for any other group of commodities. This was also the experience of the United States over the same period, but, since January, 1947, United States farm products have shown weakness in a number of important commodities and the trend has been reversed, whereas in Canada the advance has been a controlled one and has extended gradually into 1947.

The precipitous advance in United States general wholesale prices was of great concern to Canadian price-control authorities. This advance had been anticipated in July, 1946, when the Canadian dollar was returned to par with the United States dollar, thus reducing the Canadian dollar cost of imports from the United States. But this provided a buffer of 10 p.c. only and the rise in United States prices was greater than that on a large majority of imported articles so that continuous pressure was felt, especially among individual items. Imports from the United States were at an all-time high of approximately $1,400,000,000 for the year and to the extent that these items increased in cost, the Canadian problem of price control was made that much more difficult.

1.—Annual Index Numbers of Wholesale Price Groups, Significant Years, 1913-46, and Monthly Index Numbers, 1946 and 1947

(1926=100)

Year and Month	General Wholesale	Consumer Goods	Producers Goods	Raw and Partly Manufactured Goods	Fully and Chiefly Manufactured Goods	Canadian Farm Products	Building and Construction Materials	Industrial Materials
1913	64·0	62·0	67·7	63·8	64·8	64·1	67·0	-
1920	155·9	136·1	164·3	154·1	156·5	160·6	144·0	-
1922	97·3	96·9	98·8	94·7	100·4	88·0	108·7	-
1929	95·6	94·7	96·1	97·5	93·0	100·8	99·0	91·8
1933	67·1	71·1	63·1	56·6	70·2	51·0	78·3	54·1
1939	75·4	75·9	70·4	67·5	75·3	64·3	89·7	69·0
1940	82·9	83·4	78·7	75·3	81·5	67·6	95·6	79·0
1941	90·0	91·1	83·6	81·8	88·8	72·8	107·3	87·3
1942	95·6	95·6	88·3	90·1	91·9	85·0	115·2	94·2
1943	100·0	97·0	95·1	99·1	93·1	97·9	121·2	97·6
1944	102·5	97·4	99·9	104·0	93·6	107·1	127·3	99·8
1945	103·6	98·1	100·7	105·6	94·0	109·7	127·3	99·8
1946	108·7	101·1	105·7	109·5	98·8	111·9	134·8	103·6
1946								
January	104·6	97·8	102·1	106·0	95·3	109·6	128·1	99·9
February	105·3	98·1	103·4	106·9	95·5	110·3	128·5	100·4
March	105·6	99·0	103·6	107·0	96·0	110·3	128·6	99·9
April	108·4	100·9	105·1	108·2	98·6	110·7	135·2	102·3
May	109·0	101·0	105·8	109·1	98·6	111·5	135·2	102·5
June	109·3	101·4	106·4	109·8	98·7	112·7	135·2	103·3
July	109·7	102·1	106·2	110·2	98·9	113·8	134·7	103·1
August	109·3	101·6	105·9	108·6	99·6	111·5	135·8	106·5
September	109·2	101·5	105·9	108·2	99·8	110·9	135·8	106·8
October	111·0	103·1	107·4	112·3	101·4	113·3	137·6	106·1
November	111·6	103·3	108·1	113·5	101·4	113·8	140·9	105·8
December	112·0	103·1	108·9	113·6	101·7	113·9	141·7	106·4
1947[1]								
January	114·2	104·1	111·3	115·2	103·7	114·4	148·3	108·2
February	118·1	107·2	117·4	119·4	106·8	115·5	151·5	120·1
March	120·4	108·6	121·2	123·8	107·7	116·4	151·5	122·6
April	122·9	110·8	123·6	125·6	111·8	116·9	152·4	126·7
May	125·3	112·5	125·6	128·1	113·4	118·5	160·2	128·0
June	127·8	116·5	128·5	129·3	115·6	119·2	164·0	131·6

[1] Subject to revision.

Section 2.—Cost of Living

A consolidation of official cost-of-living indexes was made in 1940 when the index shown at p. 929, on the base 1935-39=100, replaced the Dominion Bureau of Statistics preceding series on the base 1926=100, and also the Dominion Department of Labour index on the base 1913=100. The Bureau's present index reflects changes in a pre-war budget covering retail prices of commodities, services and shelter costs based upon the expenditure experience of 1,439 urban wage-earner families in the year ended Sept. 30, 1938. The record completed by these families was especially designed to provide budget data necessary for the accurate compilation of a cost-of-living index. This index reflects changes in the cost of the same level of living and no account is taken of shifting planes of living because of changes in economic circumstances, e.g., variations in income or direct taxation, or because of changing ages or variation in numbers of persons in the family. The basis of selecting families for the 1938 expenditure survey is described in the 1941 Year Book at p. 723. Further particulars of the methodology employed and a summary of the results of the Nutrition and Family Living Expenditures Investigation are given at pp. 819-821 in the 1940 Year Book. The detailed findings appear in a report entitled "Family Income and Expenditure in Canada, 1937-38".

The cost-of-living index budget does not represent a minimum standard of living; it is a budget based upon actual living expenditure records of typical wage-earner families.

It is important to remember that the index measures changes in the costs of the same level of living from month to month and year to year. The significance of this is at once apparent after comparing the rise in the index during the five years ended December, 1946, with the rise in average weekly earnings of industrial workers. In that period the cost-of-living index rose less than 10 p.c. while the average weekly wage received by workers in eight leading industries advanced by more than 24 p.c. Greater earnings have been reflected in greater spending despite heavier taxes and higher savings. This is borne out by figures of retail sales in 1946 which were almost 48 p.c.* above corresponding 1941 levels.

Claims that the cost of living has risen substantially during the past five years are undoubtedly due in part to confusion between higher costs resulting from higher prices, and higher costs due to greater purchases. The cost-of-living index reflects the rise in prices, but not the increase in purchases.

The cost-of-living index budget is being kept up-to-date, although still measuring changes in the same general level of living. As basic changes in consumption have occurred, the index budget has been adjusted accordingly.

Concern regarding items in the index budget has been paralleled by efforts to make certain of the accuracy of price records used to calculate the budget cost. Close and continued scrutiny of retail price returns, which the Dominion Bureau of Statistics receives from its 2,000 price correspondents, has produced the belief that price reporting has been honest and that price returns are accurate. However, to remove all doubt on this point, cost-of-living representatives have been assigned to important distributing centres across the Dominion. It is their duty to check price returns used in compiling the cost-of-living index, and to watch particularly for evidence of quality deterioration in goods for which prices are reported. It has been the Bureau's practice for many years to consider deterioration in quality as equivalent to a rise in price.

There is a tendency to think only of food when considering the cost of living. The index showed a rise of 47·4 p.c. in food prices from August, 1939, to December, 1946. However, group indexes for rents and miscellaneous items retarded the advance in living costs. The miscellaneous group, which includes costs of health maintenance, transportation, personal care, recreation and life insurance, rose 12·6 p.c., and, due to rent control, the rise in rents amounted to only 9·2 p.c. Considered together, these two groups are more important than food.

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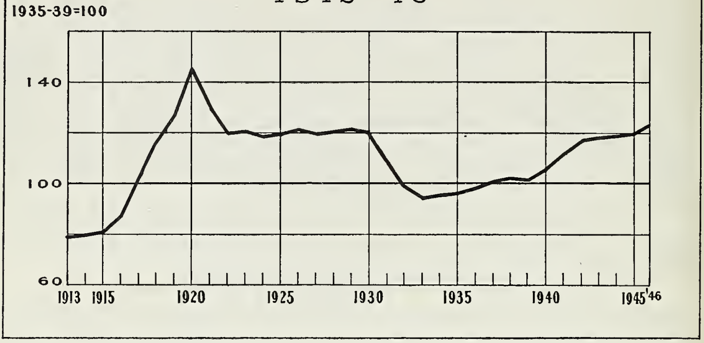
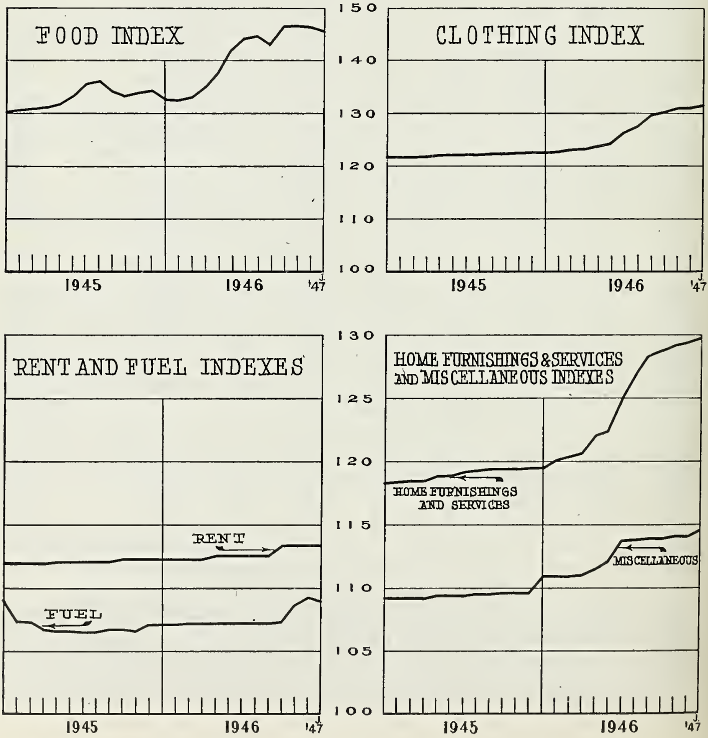
* As indicated by records from stores dealing chiefly in foods, clothing and household requirements.

VARIATIONS IN THE COST OF LIVING INDEX

1913-46





If they had advanced by the same amount as food, that is by 47·4 p.c., the December, 1946, cost-of-living index would have been 41·5 p.c. above the pre-war level instead of 26·1 p.c.

Cost of Living in 1946.—The official monthly cost-of-living index advanced 7·0 points during 1946 to 127·1. This increase was almost as large as the 1941 advance of 7·8 points which preceded the establishment of general price ceilings in December of that year. Price control during the intervening period kept the over-all increase down to 5·1 points. The movement in 1946 reflected the reaction in retail price levels to a post-war policy of price decontrol and subsidy removal. Although food prices showed the sharpest increases, clothing and home furnishings also advanced substantially, and all group indexes contributed in some measure to the change recorded. Changes in the different budget groups during 1946 were as follows:—

Item	*December, 1945*	*December, 1946*	*Point change*
Food	134·3	146·4	+12·1
Fuel	107·1	109·2	+ 2·1
Rent	112·3	113·4	+ 1·1
Clothing	122·5	131·2	+ 8·7
Home furnishings	119·5	129·4	+ 9·9
Miscellaneous	109·6	114·1	+ 4·5
TOTAL INDEX	120·1	127·1	+ 7·0

3.—Annual Index Numbers of Living Costs, 1935-46, and Monthly Index Numbers, 1946 and 1947

(1935–39=100)

NOTE.—Figures for the years 1913–34 will be found at p. 863 of the 1946 Year Book.

Year and Month	Food Index	Rent Index	Fuel and Lighting Index	Clothing Index	Home Furnishings and Services Index	Miscellaneous Index	Total Index
1935	94·6	94·0	100·9	97·6	95·4	98·7	96·2
1936	97·8	96·1	101·5	99·3	97·2	99·1	98·1
1937	103·2	99·7	98·9	101·4	101·5	100·1	101·2
1938	103·8	103·1	97·7	100·9	102·4	101·2	102·2
1939	100·6	103·8	101·2	100·7	101·4	101·4	101·5
1940	105·6	106·3	107·1	109·2	107·2	102·3	105·6
1941	116·1	109·4	110·3	116·1	113·8	105·1	111·7
1942	127·2	111·3	112·8	120·0	117·9	107·1	117·0
1943	130·7	111·5	112·9	120·5	118·0	108·0	118·4
1944	131·3	111·9	110·6	121·5	118·4	108·9	118·9
1945	133·0	112·1	107·0	122·1	119·0	109·4	119·5
1946	140·4	112·7	107·4	126·3	124·5	112·6	123·6
1946							
January	132·8	112·3	107·1	122·6	119·5	110·9	119·9
February	132·5	112·3	107·1	122·7	120·1	110·9	119·9
March	133·1	112·3	107·2	123·1	120·4	110·9	120·1
April	135·1	112·3	107·2	123·2	120·7	111·0	120·8
May	137·7	112·6	107·2	123·7	122·1	111·5	122·0
June	142·1	112·6	107·2	124·3	122·4	112·1	123·6
July	144·2	112·6	107·2	126·4	125·1	113·7	125·1
August	144·7	112·6	107·2	127·6	127·0	113·8	125·6
September	143·2	112·6	107·2	129·6	128·4	113·9	125·5
October	146·5	113·4	107·3	130·2	128·8	113·9	126·8
November	146·6	113·4	108·6	131·1	129·2	114·1	127·1
December	146·4	113·4	109·2	131·2	129·4	114·1	127·1
1947							
January	145·5	113·4	109·0	131·5	129·8	114·7	127·0
February	147·0	113·4	109·1	131·9	130·9	115·5	127·8
March	148·7	113·4	109·1	133·1	133·6	116·0	128·9
April	151·6	113·4	109·1	136·9	137·2	116·3	130·6
May	154·9	115·4	116·2	140·0	138·6	116·8	133·1
June	157·7	117·8	116·7	142·4	139·8	117·1	134·9

Regional Changes in Living Costs.—In 1941, the Bureau established cost-of-living indexes for eight regional cities covering the period since August, 1939. These indexes, for the cities shown in Table 4, have been patterned after the official cost-of-living series for Canada, and include group indexes for food, fuel, rent, clothing, home furnishings and services, and miscellaneous items. The budget quantities employed for these calculations have been computed from expenditure records of wage-earner families in the year ended Sept. 30, 1938. The only differences between the city and Dominion indexes are the base period used and the frequency of the publication of data. For the city records, August, 1939 = 100 is the base used instead of the five-year period 1935-39, and these indexes are given in Table 4 for alternate months only.

Regional movements in living costs since the outbreak of the Second World War have been closely comparable to movements in the Dominion index, which advanced 26·1 p.c. between August, 1939, and December, 1946. During this period increases in the eight city indexes ranged from 23·2 to 29·1 p.c.

4.—Index Numbers of Living Costs in Eight Cities of Canada, Alternate Months, 1940, 1942, 1944, 1945, 1946 and 1947

(August, 1939=100)

Year and Month	Halifax	Saint John	Montreal	Toronto	Winnipeg	Saskatoon	Edmonton	Vancouver
1940								
February	103·4	103·0	104·4	102·5	102·6	104·6	103·1	103·0
April	104·9	104·2	105·4	103·2	103·3	105·1	103·7	103·5
June	105·5	104·1	106·2	103·4	103·2	104·7	103·8	103·1
August	107·5	105·4	107·0	104·2	104·6	105·3	103·7	103·8
October	107·0	107·0	108·3	105·1	105·2	106·9	104·2	104·1
December	108·0	108·7	109·4	105·8	106·3	108·6	105·6	105·4
1942								
February	113·5	115·2	117·1	114·5	112·4	115·7	110·9	112·2
April	113·5	115·1	117·4	114·7	112·6	116·1	111·1	112·3
June	114·0	115·4	118·2	115·5	113·1	116·2	112·0	113·1
August	115·8	117·2	118·7	116·2	115·0	117·5	114·1	115·1
October	115·5	116·6	119·4	116·3	114·5	117·0	113·6	115·5
December	116·2	117·3	120·3	116·8	115·6	118·5	115·0	116·9
1944								
February	117·9	118·6	121·0	117·0	115·4	119·3	115·7	116·8
April	118·2	118·7	121·2	117·2	115·7	119·4	115·7	117·3
June	118·3	118·8	120·7	117·1	115·5	119·3	115·7	117·5
August	119·0	119·6	120·2	117·1	115·7	119·6	116·1	117·0
October	118·4	118·7	120·1	117·0	115·8	119·2	115·8	117·2
December	118·4	118·4	120·2	116·5	115·8	119·2	115·6	116·9
1945								
February	118·8	118·6	120·9	116·5	116·0	119·4	116·0	117·6
April	118·7	118·8	121·0	116·8	116·2	119·6	116·2	117·8
June	119·1	119·4	121·9	118·1	117·2	119·9	116·7	119·1
August	121·1	120·9	123·6	118·4	118·0	121·2	117·7	119·4
October	119·4	119·5	122·2	117·7	116·8	120·3	117·1	117·9
December	119·6	119·7	122·6	118·1	117·0	120·7	117·6	118·7
1946								
February	119·3	119·7	122·2	118·2	117·1	120·6	117·8	119·2
April	120·3	120·6	123·1	119·3	118·4	121·7	119·1	120·4
June	122·4	122·5	125·8	121·9	120·9	125·3	121·2	123·7
August	125·0	124·6	128·3	123·5	122·1	126·1	123·2	124·7
October	125·0	124·9	129·5	124·9	122·7	127·2	123·9	125·9
December	125·1	125·1	129·1	125·0	123·2	128·2	124·8	126·6
1947								
February	125·6	125·9	129·6	126·0	124·0	129·0	124·9	127·7
April	127·9	128·5	132·7	128·8	126·1	131·7	127·5	130·1
June	131·0	132·1	137·7	133·3	129·7	136·2	131·3	134·3

Prices of Services.—Service costs comprise approximately 19 p.c. of the family expenditure budget used in compiling the Dominion Bureau of Statistics cost-of-living index numbers. Trends in rates for some of the more important of these services since the beginning of the base period, 1935-39, are shown in Table 5.

5.—Index Numbers of Domestic Service Rates, 1940-46

(1935-39=100)

Item	1940	1941	1942	1943	1944	1945	1946
Domestic rates of fuel gas....	106·7	104·1	105·1	105·1	105·1	105·1	105·1
Domestic electric-light rates.	103·5	103·0	102·8	97·7	94·3	90·9	91·6
Domestic telephone rates....	101·9	103·3	103·3	103·3	103·3	103·3	103·3
Street-car fares..............	100·1	100·1	100·1	100·1	100·0	100·0	100·0
Hospital-room rates..........	102·7	104·3	106·0	111·0	116·0	124·1	133·2

Section 3.—Index Numbers of Security Prices

Security prices have long been utilized in statistical measurements related to economic phenomena. They are generally sensitive to changing business conditions, although this valuable characteristic is sometimes overshadowed by the fact that their movements may be influenced greatly by speculative interest very remotely associated with underlying economic conditions. Thus in 1928 and 1929, common-stock prices advanced far beyond levels indicated by business profits and prospects. Security-price trends have also been at variance with other business indexes during the First and Second World Wars.

Investors Price Index Numbers of Common Stocks, 1946.—Common-stock prices in 1945 recorded their sharpest rise since 1928-29. The January, 1946, investors index of 123·5 was 34·1 points above the January, 1945, level. After that month it wavered, and from a high of 125·1 in April, 1946, declined steadily until October, 1946, when it stood at 101·8. There followed a slight gain, with the index at 106·4 at the end of the year.

6.—Investors Index Numbers of Common Stocks, by Months, 1946

(1935-39=100)

Month	Grand Total	Types of Stocks										
			Industrials									
		Banks, Total	Industrials, Total	Machinery and Equipment	Pulp and Paper	Milling	Oils	Textiles and Clothing	Food and Allied Products	Beverages	Building Materials	Industrial Mines
January....	123·5	121·6	116·0	168·2	252·6	130·6	90·0	183·7	127·8	357·6	149·0	106·1
February...	121·8	126·8	113·8	172·9	248·5	132·1	84·8	187·8	130·3	334·0	150·5	106·9
March......	119·2	129·2	110·9	189·2	244·4	130·6	81·6	186·8	129·0	327·8	148·6	100·4
April.......	125·1	133·6	117·6	207·0	277·3	141·4	84·6	200·2	134·6	353·8	160·6	106·0
May........	124·4	134·2	117·7	205·7	278·3	140·8	74·7	208·3	136·6	410·6	164·0	109·8
June........	123·3	135·0	116·7	202·1	282·5	141·7	73·1	210·3	136·4	410·3	167·0	108·5
July........	119·1	135·3	112·6	190·0	266·1	140·0	71·8	206·4	134·0	430·2	157·3	100·1
August.....	116·9	132·3	110·4	187·6	268·6	139·4	70·8	207·9	129·9	430·5	154·1	96·1
September .	104·4	124·1	97·4	162·7	229·4	122·6	64·9	190·5	123·7	349·2	137·1	84·5
October....	101·8	124·7	95·0	166·0	233·3	123·0	63·2	182·1	122·8	330·9	133·9	81·6
November.	102·5	129·8	95·3	173·7	235·1	122·7	63·1	180·7	121·0	314·3	134·9	83·6
December..	106·4	133·5	99·3	180·2	250·0	123·9	63·6	181·8	123·3	317·1	138·4	92·1

6.—Investors Index Numbers of Common Stocks, by Months, 1946—concluded

Month	Types of Stocks			
	Public Utilities			
	Public Utilities, Total	Transportation	Telephone and Telegraph	Power and Traction
January	148·6	256·4	120·3	125·7
February	146·0	249·7	122·2	122·7
March	142·4	229·6	126·5	121·7
April	145·4	233·8	128·2	124·8
May	140·7	224·1	134·1	117·8
June	138·4	234·0	135·6	110·0
July	132·2	206·9	132·0	109·8
August	130·3	197·5	131·5	109·9
September	118·8	164·8	124·0	103·7
October	114·1	150·8	114·8	103·8
November	115·2	145·6	114·7	107·5
December	118·3	148·7	118·9	110·3

Preferred Stocks, 1946.—The movement of preferred stock prices in 1945 and the first six months of 1946 continued an almost unbroken rise, dating from the last quarter of 1942. During this period the preferred stock index rose to 161·6. This was the highest index ever recorded in this series, which dates back to January, 1927. However, a decline after June, 1946, brought the index down to 153·5 at the end of the year.

7.—Index Numbers of Preferred Stocks, by Months, 1927-46

(1935-39=100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1927	123·2	123·6	123·9	123·8	123·6	123·2	123·6	125·2	126·4	130·0	133·7	134·9
1928	134·5	133·8	132·6	134·4	134·7	134·1	133·1	129·7	129·8	128·1	125·5	130·2
1929	129·6	130·4	128·8	125·8	125·8	126·4	126·4	127·4	126·8	124·1	120·4	121·1
1930	118·1	119·2	120·6	124·7	123·8	120·0	117·5	117·1	116·0	103·0	98·8	99·5
1931	100·4	100·6	101·6	95·1	89·0	87·6	86·6	83·4	77·4	77·1	80·2	76·0
1932	69·0	70·9	70·0	66·8	58·4	54·5	59·7	63·8	64·4	63·8	63·0	60·6
1933	59·8	59·8	57·1	57·1	65·9	70·6	74·7	74·4	73·6	72·0	71·3	72·6
1934	77·3	80·2	81·2	82·6	82·9	82·5	82·1	81·2	81·3	83·8	85·2	86·1
1935	88·7	89·0	85·9	83·5	82·5	82·5	84·0	85·5	83·5	83·8	87·5	89·0
1936	90·3	93·1	92·0	91·7	90·0	91·9	95·9	97·2	101·1	104·7	109·9	113·3
1937	119·7	121·1	123·8	124·4	120·9	119·8	119·9	122·4	109·8	99·2	98·9	97·7
1938	100·6	99·0	93·5	94·3	96·6	98·7	105·2	104·7	98·1	106·2	105·5	104·8
1939	102·5	101·8	101·2	95·2	95·3	98·8	100·1	97·7	100·5	107·4	108·7	110·1
1940	110·7	109·7	108·8	108·9	96·7	86·9	89·0	93·9	99·1	100·7	103·0	101·7
1941	101·4	97·6	98·7	97·9	96·3	96·8	98·5	100·0	103·2	102·2	102·6	100·7
1942	99·6	96·8	95·6	94·5	95·4	96·5	95·7	95·8	95·6	96·2	97·5	100·4
1943	102·7	105·5	106·4	108·2	110·1	113·3	117·3	117·8	118·0	118·2	115·3	115·8
1944	118·3	118·6	119·2	118·7	118·5	122·2	124·7	125·9	126·3	126·7	128·8	129·8
1945	131·8	132·1	130·9	130·3	132·4	137·2	138·0	137·8	139·4	142·5	145·0	146·6
1946	152·1	154·1	154·5	157·8	159·7	161·6	157·5	157·9	151·4	153·6	154·7	153·5

Weighted Index Numbers of Mining Stocks.—Index numbers of gold and base metal stocks are given by months for 1944-46 in Table 8.

8.—Weighted Index Numbers of Prices of Mining Stocks, by Months, 1944-46

(1935-39=100)

Year and Month	Gold	Base Metal	Total	Year and Month	Gold	Base Metal	Total
1944				**1945**—concluded			
January	72·2	89·4	78·5	July	88·0	101·1	93·1
February	71·3	88·6	77·5	August	89·7	99·4	93·7
March	70·1	86·5	76·0	September	91·2	98·6	94·5
April	70·4	92·0	78·0	October	96·2	101·1	98·8
May	69·2	93·0	77·5	November	102·3	108·8	105·5
June	74·1	97·1	82·2	December	104·0	113·8	108·2
July	80·0	100·2	87·3				
August	78·4	97·3	85·3	**1946**			
September	77·3	98·7	84·9	January	107·2	127·5	114·9
October	75·6	99·8	84·1	February	111·6	124·8	116·9
November	75·9	95·9	83·1	March	101·3	119·9	108·4
December	74·4	91·6	80·6	April	99·8	127·9	110·0
				May	94·2	130·4	107·0
1945				June	92·0	125·7	104·0
January	80·5	93·9	85·6	July	81·7	114·9	93·4
February	87·3	98·2	91·7	August	77·6	112·1	89·7
March	84·7	97·9	89·8	September	71·1	101·0	81·6
April	85·3	98·6	90·5	October	70·1	98·9	80·3
May	90·6	99·1	94·3	November	73·1	101·9	83·3
June	92·2	102·7	96·5	December	70·9	107·6	83·7

Section 4.—Index Numbers of Bond Yields

The exceptional requirements of the war years of 1914-18 turned the Dominion authorities to the domestic market, a field that had hitherto served mainly the needs of the provinces and municipalities. Historical records of long-term bond yields in the domestic market prior to 1914 are obtainable, therefore, from provincial and municipal sources only. A record of Ontario issues from 1900 to date is available* and was utilized for the first long-term bond yield index constructed by the Bureau of Statistics. The relatively long period for which the record has been preserved makes this series of considerable value.

Since the War of 1914-18, however, the growing importance of Dominion financing in the domestic market has made it advisable to supplement the Ontario series with the Dominion index of long-term bond yields shown in Table **9**. This series (1935-39=100) has been computed from January, 1937, on the basis of yields computed from a 15-year, 3 p.c. theoretical issue. Quotations for the theoretical yields are computed by the Bank of Canada.

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* This index of Ontario long-term bond yields may be found in the Bureau's monthly bulletin "Prices and Price Indexes", obtainable from the Dominion Statistician, Ottawa.

9.—Index Numbers of Dominion of Canada Long-Term Bond Yields, by Months, 1939-46

(1935-39=100)

Month	1939	1940	1941	1942	1943	1944	1945	1946
January	97·3	109·3	100·6	99·4	98·8	97·3	96·7	90·0
February	97·2	107·2	100·8	99·3	98·5	97·3	96·6	85·9
March	95·4	107·9	100·5	99·6	97·6	97·3	96·3	83·8
April	96·3	105·5	100·6	99·6	97·3	97·3	96·0	84·3
May	97·8	104·5	101·1	99·5	97·3	97·2	96·0	85·1
June	95·7	107·8	101·9	98·8	97·3	97·0	95·6	84·9
July	96·0	107·0	101·5	98·7	97·3	97·0	94·6	85·1
August	98·6	104·3	101·2	99·0	97·3	97·0	94·4	85·0
September	117·0	103·1	100·3	99·4	97·3	97·0	94·6	84·9
October	111·9	102·6	100·2	99·6	97·3	97·0	94·4	85·0
November	108·4	101·9	99·1	99·6	97·3	97·0	93·9	85·0
December	110·5	101·0	99·3	99·4	97·3	96·9	92·2	85·0

CHAPTER XXV.—NATIONAL ACCOUNTS AND PUBLIC FINANCE

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PART I.—NATIONAL WEALTH AND INVESTMENTS

Section 1.—National Wealth

Owing to the abnormal economic conditions that have prevailed over the past fifteen-year period, no official estimate for national wealth has been made since that of 1933 which measured economic conditions at the lowest point of the pre-war depression. It is not considered desirable to establish another basis of national wealth until conditions have become normal. A short summary of the position is given at pp. 795-796 of the 1942 Year Book.

Section 2.—Canada's International Investment Position*

Traditionally, Canada has been one of the prominent debtor nations. Liabilities to other countries in the form of external capital invested in Canada have exceeded Canadian-owned assets abroad by very substantial amounts. The investment of external capital has played an important part in the development of Canada. British investments occupied first place in investments of external capital before the War of 1914-18 but United States investments during that War and in the inter-war years expanded rapidly and, even before 1926, considerably exceeded the amount of British capital invested in Canada. A further growth in United States investments took place during the War of 1939-45 and by the end of the War they had reached a new peak while British investments in Canada were sharply reduced by repatriations of securities during the War.

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* Prepared by C. D. Blyth, Chief, Balance of Payments Section, International Trade Statistics Division, Dominion Bureau of Statistics, Ottawa. In so far as this subject relates to the balance of international payments it is dealt with at pp. 901-911. More detailed information on this subject is given in "The Canadian Balance of International Payments, 1926-45", published by the Balance of Payments Section, Dominion Bureau of Statistics.

Although the balance of Canadian indebtedness to other countries was materially reduced during the recent War, Canada was still a debtor nation at the end of 1945. The balance of Canadian indebtedness to other countries at that time was estimated at about $3,750,000,000, gross liabilities to investors in other countries being close to $7,500,000,000 and gross external assets amounting to about $3,750,000,000 if Canada's liquid reserves in United States dollars and gold and Canadian dollar credits to other countries are added to privately owned Canadian investments abroad. This compares with a net external debt of over $5,000,000,000 at the end of 1939 and to over $6,000,000,000 in 1930.

There are some striking contrasts in the composition of Canada's international assets and liabilities. A major part of the assets are owned by the Canadian Government in the form of cash balances, gold, and loans to other governments. Privately owned assets abroad in the form of foreign securities and property owned by Canadian companies and individuals amounted to a minor part of the total value of all assets at the end of 1945, whereas in 1939 these assets constituted most of the total. In the case of Canadian liabilities abroad, there is no intergovernmental indebtedness, although a substantial portion is represented by non-resident holdings of bonds of the Canadian Government, as well as railway and corporation issues. In addition to the large contractual portion of Canada's external debt giving rise to regular payments of interest, there is the large non-resident equity interest in Canadian businesses, a specially significant part of which takes the form of direct investments by foreign companies in Canadian branches and subsidiaries.

Important changes have taken place in the geographical pattern and currency significance of Canada's position. Total foreign investments in Canada in 1945 had an aggregate value close to the total in 1939, but a larger percentage of the 1945 total, (70 p.c.) represented investments held in the United States. During the same period there was a large increase in Canada's official liquid reserves in United States dollars and gold, if the latter is regarded as a foreign asset, because of its readily convertible character. When these assets are taken into account, the balance of Canadian indebtedness to the United States remained close to $3,000,000,000. The balance of Canadian indebtedness to the United Kingdom, on the other hand, was reduced to approximately $1,000,000,000, if government indebtedness, later settled in the Settlement of War Claims of March, 1945, between Canada and the United Kingdom is excluded. The principal factors in the wartime reduction in net indebtedness were the repatriations of British investments in Canada and the loan of $700,000,000 to the United Kingdom in 1942, $561,000,000 of which remained outstanding at the end of 1945. Since 1945, the balance of indebtedness has been further reduced, mainly by United Kingdom drawings on the new loan of $1,250,000,000 which, by the end of 1946, totalled $540,000,000. But, at the same date, the 1942 loan to the United Kingdom had been reduced to $471,900,000.

The net investment position which Canada has reached with respect to all other overseas countries was further increased in 1946 by net drawings of over $200,000,000 by foreign governments receiving export credits.

British and Foreign Investments in Canada.—At the end of 1945, the total value of British and foreign investments in Canada was estimated at $7,095,000,000. Investments held in the United Kingdom were estimated to have had a book value of $1,766,000,000; this figure included British-owned investments and some investments held in the United Kingdom by nominees for residents of other countries. The value of investments held in the United States at the end of 1945 had a book value of $4,982,000,000. While generally indicative of American ownership, this total also includes an indeterminable amount of securities held in the United States by nominees for residents of other countries. The remaining amount of external capital invested in Canada, $347,000,000, was owned in other overseas countries. The total investments in Canada owned in these other overseas countries would include, therefore, the $347,000,000 plus the indeterminable amounts included in the British and United States totals shown above.

By the end of 1945, about 43 p.c. of the external capital invested in Canada was represented by holdings of bonds and debentures compared with about 56 p.c. in 1939. The proportionate decline was even greater in the case of British investments in Canada because of the official repatriations of Dominion and Canadian National Railway bonds, but the percentage of United States capital invested in bonds was also a little less than in 1939, even though the total holdings of Canadian bonds in the United States increased from an estimated $2,095,000,000 in 1939 to $2,357,000,000 in 1945. The proportion of total Canadian bonds outstanding represented by the bonds held in the United States was, however, much less in 1945 than in 1939 because of the extent of wartime financing by the Federal Government through sales of bonds to Canadians. At the end of 1939, Canadian bonds held in the United States represented about 21 p.c. of the total of almost $10,000-000,000 of outstanding Canadian issues. By the end of 1945, the United States holdings amounted to approximately 11 p.c. of the more than $22,000,000,000 of Canadian bonds outstanding.

Total non-resident investments in Canadian businesses, excluding the Canadian National Railways, have increased from $4,241,000,000 to $4,790,000,000 but, if estimated non-resident holdings of Canadian National Railway bonds are included, the gross external investment in all Canadian businesses has increased only from $4,935,000,000 to $5,154,000,000. This increase in the narrower field of privately owned industry and commerce is small in relation to the great expansion in capital employed by Canadian industry during the War, most of which expansion was directly financed by Canadian sources.

The direct investments of United States businesses in Canada in branches, subsidiaries and controlled companies make up an important group of United States investments in Canada. The aggregate value of these direct investments is great, the investment in close to 2,000 different concerns, amounting to $2,300,000,000 at the end of 1945 compared with $1,881,000,000 at the end of 1939, or an increase of 22 p.c. during the six wartime years. While this increase stands out in comparison with the moderate decline in this group of investments that occurred during the decade before the War, it represents a relatively small increase compared to the sharp rate of expansion that occurred in the value of United States direct investments in Canada between 1926 and 1930.

More than one-half ($1,285,000,000) of total United States direct investments in Canada are in manufacturing. The total value of these United States-controlled companies in the manufacturing field probably represents close to one-third of the total investments in manufacturing concerns in Canada. In the broader field of Canadian business—all industrial, mining and commercial concerns including railways and utilities—the ratio of investments controlled in the United States is much less, possibly about one-fifth at the present time. However, the high percentage of United States controlled companies in the manufacturing field in Canada should not be taken as an indication that Canadian industry in general is dominated by United

States companies, for the direct investments are widely distributed throughout a great many companies and the percentage of United States-controlled companies varies considerably in different industries. In some industries, such as the manufacture of automobiles, rubber goods, electrical appliances, and the refining of petroleum, as well as in the non-ferrous metals and chemical industries, United States-controlled companies predominate. In other industries, United States-controlled groups are less important and there are many industries and trades in which the leading firms and the predominance of control is Canadian; these include the primary iron and steel industry and cotton textiles and merchandising. In other branches of industry, the United States-controlled portion, while representing a large part, nevertheless, shares the field generally with Canadian capital as is the case in the pulp and paper industry and mining.

Total British investments in Canada in 1945 of $1,766,000,000, including some investments held in the United Kingdom for owners living elsewhere, can be roughly divided into portfolio investments of $1,313,000,000, direct investments of $368,000,000, and miscellaneous investments of $85,000,000. Most of the large reduction in British investments in Canada during the War occurred in portfolio holdings of securities, particularly of Canadian Government and Canadian National Railway issues. More than one-half of the portfolio investments still held in 1945 was made up of holdings of public issues of stock in Canadian companies with a book value of $745,000,000, the major part of which was made up of railway stock. Holdings of Canadian provincial, municipal and corporation bonds had an estimated par value of $588,000,000 in 1945, including some relatively small amounts of bonds included in the direct investment group. A large part of the direct investments in branches and subsidiaries was concentrated in certain fields of business—insurance, textiles and certain other consumer goods industries.

Investments in Canada by countries other than the United Kingdom and the United States, which can be directly identified, are estimated at $347,000,000 in 1945 compared with $286,000,000 in 1939. In addition to these totals, there are appreciable amounts of investments held in the United Kingdom and the United States which are believed to be owned elsewhere.

1.—Estimated British and Foreign Capital Invested in Canada, by Type of Investment, as at Dec. 31, 1926, 1930, 1933, 1939 and 1945

Type of Investment	1926	1930	1933	1939	1945[1]
	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
Government Securities—					
Dominion	638·0	682·0	751·9	823·0	726·0
Provincial	421·6	592·3	571·7	536·0	619·0
Municipal	374·1	431·5	394·4	344·0	312·0
Totals, Government Securities	1,433·7	1,705·8	1·718·0	1,703·0	1,657·0
Public Utilities—					
Railways	1,938·4	2,244·3	2,244·7	1,870·6	1,601·0
Other	394·5	633·4	625·4	549·4	495·0
Totals, Public Utilities	2,332·9	2,877·7	2,870·1	2,420·0	2,096·0
Manufacturing	1,198·3	1,573·0	1,421·6	1,445·2	1,816·0
Mining and smelting	219·1	334·1	338·5	329·1	400·0
Merchandising	149·8	202·9	191·5	189·3	227·0
Financial institutions	343·6	542·9	479·6	472·7	546·0
Other enterprises	65·2	82·4	75·2	69·0	69·0
Miscellaneous assets	260·0	295·0	270·0	285·0	284·0
Totals, Investment	**6,002·6**	**7,613·8**	**7,364·5**	**6,913·3**	**7,095·0**
United Kingdom	2,636·3	2,766·3	2,682·8	2,475·9	1,766·0
United States	3,196·3	4,659·5	4,491·7	4,151·4	4,982·0
Other countries	170·0	188·0	190·0	286·0	347·0

[1] Subject to revision.

2.—Estimated British and Foreign Capital Invested in Canada, by Type of Investment, Classified by Estimated Distribution of Ownership, as at Dec. 31, 1945[1]

NOTE.—Common and preference stocks are shown at book values as shown in the balance sheets of the issuing companies, bonds and debentures are valued at par, liabilities in foreign currencies being converted into Canadian dollars at the par of exchange.

Type of Investment	Estimated Distribution of Ownership			Total Investments Owned Outside Canada
	United States[2]	British[2]	Other Countries	
	$'000,000	$'000,000	$'000,000	$'000,000
Government Securities—				
Dominion	682·0	Nil	44·0	726·0
Provincial	574·0	40·0	5·0	619·0
Municipal	194·0	112·0	6·0	312·0
Totals, Government Securities	1,450·0	152·0	55·0	1,657·0
Public Utilities—				
Railways	720·0	809·0	72·0	1,601·0
Other	373·0	93·0	29·0	495·0
Totals, Public Utilities	1,093·0	902·0	101·0	2,096·0
Manufacturing	1,479·0	297·0	40·0	1,816·0
Mining and smelting	318·0	63·0	19·0	400·0
Merchandising	165·0	57·0	5·0	227·0
Financial institutions	285·0	205·0	56·0	546·0
Other enterprises	62·0	5·0	2·0	69·0
Miscellaneous assets	130·0	85·0	69·0	284·0
Totals, Investment	**4,982·0**	**1,766·0**	**347·0**	**7,095·0**

[1] Subject to revision. [2] Includes some investments held in the United States and the United Kingdom for residents of other countries.

Canadian Assets Abroad.—Canada's external assets in 1945 were much larger in total and different in composition from assets owned in 1939 and earlier periods, rising from $1,865,000,000 in 1939 to $3,715,000,000 in 1945. The most striking change was the growth in official liquid reserves mainly of United States dollar balances and gold which had a Canadian dollar value of about $1,667,000,000 in 1945. Gold is included in these totals because of its ready convertibility into United States dollars and its consequent comparability to other cash reserves. Another pronounced change was the increase in the total of outstanding Canadian Government credits to other countries, which totalled approximately $707,000,000 compared with $31,000,000 in 1939. This total included export credits under the Export Credits Insurance Act and advances of approximately $105,000,000; about $561,000,000 outstanding of the 1942 loan to the United Kingdom; and earlier loans to foreign governments of approximately $41,000,000. There was also an improvement in the value of Canadian direct investments in businesses outside of Canada which had a value of about $720,000,000. In contrast, portfolio holdings of foreign securities owned in Canada were sharply reduced to $621,000,000 in 1945 from $719,000,000 in 1939. This decline is less than the total sales of these securities by private investors during the period, as there was a considerable increase in the book value of United States stocks still held in 1945.

3.—Canadian Assets Abroad, 1930, 1939 and 1945

NOTE.—Excluding investments of insurance companies.

Item	1930	1939	1945[1]
	$'000,000	$'000,000	$'000,000
Direct investments in businesses outside of Canada	443	671	720
Portfolio holdings of foreign securities	842	719	621
Government credits	31	31	707
Net external assets of Canadian banks	180	[2]	[2]
Official liquid reserves[3]	[2]	444	1,667
Totals, Canadian Assets Abroad	**1,496**	**1,865**	**3,715**

[1] Subject to revision. [2] Not available. [3] Includes holdings of gold which, at the end of 1945, had a Canadian dollar value of $388,000,000.

The direct and portfolio investments mainly represent private investments by Canadian companies and individuals abroad. The direct and portfolio investments abroad totalled $1,341,000,000 at the end of 1945. The major part of this investment, $864,000,000, represents investments in the United States, while investments in the United Kingdom amounted to $107,000,000, in other Empire countries $88,000,000, and in other foreign countries $282,000,000. These figures exclude the investments abroad of Canadian insurance companies and banks and official assets such as cash balances, gold and intergovernmental credits referred to above. Also excluded are relatively small amounts of miscellaneous investments such as real estate, mortgages, etc., which are not represented by securities and which are difficult to evaluate.

4.—Estimated Canadian Investments Abroad, as at Dec. 31, 1945[1]

NOTE.—Excluding investments of insurance companies, banks, Government credits and liquid reserves. Holdings of stocks are at book values as shown in the books of issuing companies; holdings of bonds are shown at par values. Foreign currencies were converted into Canadian dollars at current market rates.

Location of Investment	Direct Investments	Portfolio Investments			Total Investments
		Stocks	Bonds	Total	
	$'000,000	$'000,000	$'000,000	$'000,000	$'000,000
United States	455	317	92	409	864
United Kingdom	54	26	27	53	107
Other Empire countries	69	7	12	19	88
Other foreign countries	142	104	36	140	282
Totals	**720**	**454**	**167**	**621**	**1,341**

[1] Subject to revision.

PART II.—NATIONAL ACCOUNTS*

In national accounts, familiar accounting principles are used to describe transactions that take place in the country as a whole. Just as it is possible to keep accounts for an individual business for any particular period of time, similar information can be assembled to summarize all economic transactions within the country. The resulting statistics are of vital importance in analysing many of the problems that confront government as well as business and labour, such as marketing and wage-rate problems. They are used also to ascertain stages of prosperity or depression, and as a guide to future economic trends.

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* Prepared under the direction of C. M. Isbister, Chief Economist and Director, Central Research and Development Division, Dominion Bureau of Statistics.

The national accounts presented in this part include: net national income at factor cost, gross national product and expenditure at market prices and personal income. In addition, a provincial distribution is given of salaries, wages and supplementary labour income and net income of unincorporated business, agricultural and other. More detailed analyses of the national accounts are in course of preparation to include separate accounts for the different sectors of the economy, the business sector, households, governments, etc.

Net National Income at Factor Cost.—Net national income at factor cost or, more briefly, national income, measures the earnings of Canadian residents from the productive operations of a particular period, in this case a calendar year. All those activities that give rise to goods and services are included in the phrase "productive operations". Different individuals play different parts in these productive operations and their earnings are classified accordingly. A great number of people hire out their labour in different capacities, e.g., miners, farm labourers, clerks, teachers, managers, etc. The compensation for such services is called labour income. It includes salaries, wages, and supplements, such as board and living allowances and employer contributions to pension and social insurance funds. In addition to labour income, capital investment gives rise to the other important category of income. Some people lend money capital either through the purchase of bonds and mortgages or by depositing money in the bank; others invest their money through the purchase of stocks of corporations or the purchase of real estate. Their remuneration is called investment income; it includes interest, rents and the profits of corporations including government enterprises. Since only the earnings of residents are counted, investment income going abroad is not included while investment income received from abroad is added. A number of people invest money in their own business and run it either alone or with the help of hired labour. The compensation for their services is known as net income of unincorporated business. It is a mixture of labour income and investment income.

Generally speaking, only money incomes that arise in the course of production of goods and services going through market channels are included. If goods and services are both produced and consumed within the household (for example, the services of housewives) no corresponding income is included.

In several important instances, the procedure is broadened to include an estimate of incomes for which there is no corresponding money flow. These earnings received "in kind" include the estimated value of food and clothing issues to members of the Armed Forces; board and other allowances received in kind by employees (valued in general at cost to the employer); imputed rent of owner-occupied houses; and certain products retained by sellers for their own consumption, such as food grown and consumed on farms (valued at prices for which they would otherwise have been sold).

While some incomes other than money incomes are thus included in national income, certain money receipts are excluded. Capital profits and losses are excluded by definition. In addition, a number of cash payments within the economy are classified as "transfer payments" because they do not arise from current production of goods and services and cannot be called earnings from productive operations. These transfer payments include such things as family allowances, unemployment insurance benefits, war service gratuities, and interest on government debt which was not issued to finance existing real assets.

All components of the national income are included before deduction of income taxes. The total is equivalent to the net value of production and its movement over a period of time provides an excellent indicator of economic conditions. The national income expanded from $3,940,000,000 in 1938 to $9,685,000,000 in 1944, an increase of 146 p.c. In the transition from a wartime to a peacetime economy, the aggregate dropped slightly to $9,212,000,000 in 1946 which was still 134 p.c. above the 1938 level. This high level of peacetime economic activity is a reflection of the great advance made during the War in employment and industrial production, but it should be remembered that this expansion reflects increase in price as well as growth in real production.

The classification of the national income by distributive shares provides interesting and useful information. The four main components shown in Table **1** are salaries and wages, military pay and allowances, investment income and net income of unincorporated business, agricultural and other. Salaries and wages and military pay and allowances were responsible for 61 p.c. of the total, on the average, over the period 1938 to 1946 inclusive, while investment income accounted for 20 p.c. and net income of unincorporated business for 19 p.c. These proportions varied slightly from year to year but not sufficiently to be significant. It should be noted that the small change in the relative share of each category provides, by itself, no information as to changes in earnings *per capita* for various types of productive service. For example, an increase in salaries and wages might be due to an increase in the number of people employed, while a proportionate change in investment income or in net income of unincorporated business might accrue to a constant or diminishing number of people. In short, it is necessary to know the number of individuals receiving income in each category before per capita income in these categories can be determined.

Even this additional information would not enable us to determine changes in the *size distribution* of income from the changes in income shares. There are wide differences in the size of individual receipts within each income category. In the total of salaries, wages and supplementary labour income are included individuals who receive a salary of, say, $20,000 and individuals receiving a wage of $1,000. Moreover, many individuals receive more than one type of income, since an individual drawing a salary may also receive dividends from stocks or interest on bonds.

It would be useful to classify national income by regions and by industries. Sufficient information is available at present to prepare only distributions of salaries, wages and supplementary labour income and of net income of unincorporated business, agricultural and other, by provinces for the years 1938 to 1944, inclusive. Figures for 1939 to 1944 appear in Tables **3** and **4**, respectively.

Gross National Product at Market Prices.—Gross national product differs from national income in that it includes depreciation allowances and indirect taxes as it is measured at market prices.

The market value of the goods and services produced annually can be divided into various costs of production, including profits. Gross national product at market prices is defined as the value of all goods and services produced in a year by the labour, capital and enterprise of Canadian residents measured through a consolidated national accounting of all *costs* involved in their production. These costs include labour income, investment income and net income of unincorporated business, that is, the aggregate of national income, and, in addition, net indirect taxes and depreciation allowances. Indirect taxes, such as sales taxes, excise and real property taxes are treated as business costs and must, therefore, be included. Certain subsidies paid by governments are regarded as enabling the general public to buy goods and services at less than the prices that would otherwise prevail, or as supporting the earnings of producers. Subsidies benefiting the public in this way are consequently treated as offsets to indirect taxes collected by the government. Annual depreciation and similar business reserves are elements of business cost and are necessarily added to obtain the gross national product at market prices.

Purchases of raw materials and other goods and services by one business from another are not added, as such, in this compilation. The production of these goods and services involves costs that are already counted in the general compilation of all costs of production. From this point of view, gross national product is said to be a *consolidated* total.

Since the gross national product covers all productive economic activities, it provides useful information about the development of the economy as a whole. It is important by itself and in relation to national income. The tremendous expansion in production that has taken place as a result of the stimulus of wartime demand is illustrated by the increase of gross national product from $5,075,000,000 in 1938 to $11,771,000,000 in 1944—an increase of 132 p.c. Preliminary estimates for 1946 indicate that the total was $11,129,000,000, or 119 p.c. above the 1938 level. It must be noted, however, that the gross national product, like the national income, is measured in current dollars. It is, therefore, affected by price changes as well as by changes in real production. With existing information, it is not possible to judge precisely how much of the change in gross national product is due to rising prices and how much to change in real production. Some indication can, however, be obtained from the fact that from 1938 to 1946 the index of wholesale prices went up 38 p.c. while the cost of living increased 21 p.c.

Gross National Expenditure at Market Prices.—The goods and services produced in a period must be disposed of in some way: they are either sold at home or abroad, or added to inventories. Gross national expenditure is defined as the market value of all goods and services produced by the labour, capital and enterprise of Canadian residents in a year, measured through a consolidated national accounting of the *sales* of these goods and services, including changes in inventories. Thus it measures the same total as gross national product but in a different way.

If all enterprises were to publish accurate accounts on a uniform basis, the two statistical totals—gross national product and gross national expenditure—would, in fact, be equal. These conditions are not fulfilled in practice. National accounts must summarize transactions of enterprises that do not all keep accurate accounts on the same basis, together with transactions of households, farms and small concerns that may not keep accounts at all. For these and other reasons some discrepancy between the two sides is inevitable but, considering the over-all magnitudes involved, it is interesting to note how close a balance is achieved.

Gross national expenditure can be divided into four main components: (1) consumer expenditure; (2) government expenditure; (3) gross investment at home (business expenditure on capital account); and (4) net foreign expenditure.

Consumer expenditure (personal expenditure on consumer goods and services, Table 2, item 1) comprises expenditure of Canadian residents on consumer goods and services as ordinarily understood except that expenditure on housing is excluded and added to gross investment at home. Other consumer durables such as automobiles and refrigerators are included in consumer expenditure.

Government expenditure (Table 2, item 2) includes all expenditures on goods and services by the Federal, Provincial and Municipal Governments. The total falls into two broad groups: (1) Government expenditure on services (measured by salaries, wages and interest); and (2) Government purchases of the products of business. Expenditure for war and non-war purposes is shown separately. It is to be noted that government outlays other than for goods and services are not included here—for example, family allowances and veteran gratuities.

Gross investment at home (Table 2, item 3) is divided into: (1) expenditure on new plant and equipment, including residential and commercial construction as well as expenditure for replacement of existing plant and equipment; and (2) the net change in inventories. Investment by government enterprises, such as the Canadian National Railways and Hydro-Electric Power Commission of Ontario, is included here.

Sales to consumers, to business, to government and to foreigners contain the value of goods and services imported from abroad. In so far as imports are the product of the labour, capital and enterprise of foreigners and not of Canadian residents, they must be excluded from gross national expenditure. This is accomplished by subtracting current expenditure abroad (including investment income paid abroad). On the other hand, current receipts from abroad (including investment income received from abroad) are included in gross national expenditure. The effect of these last two adjustments is to include in gross national expenditure only, the net foreign balance on current account (Table 2, item 4 minus item 5).

Sales between businesses of raw materials and other goods are not counted as such because they are already accounted for in the market valuation of the components outlined above. For example, the market price of an automobile sold by firm A includes the value of tires bought from firm B. The value of these tires is not included again in arriving at gross national expenditure. From this point of view, the sales included in gross national expenditure are said to be *consolidated.*

Analysis of the distribution of national expenditure, as portrayed in Table 2, reveals the tremendous wartime expansion in the share of the country's output absorbed by government expenditure and the extent to which this expansion was based on military requirements. In 1938, government purchases amounted to 14 p.c. of national expenditure. In 1944, the proportion increased to 43 p.c. In the transition year 1946, government wartime expenditures were drastically reduced. The decline was offset in large part by the expenditures of consumers and business, while exports, bolstered by government loans, were maintained at a high level. Consumer expenditure increased because of diminution of wartime savings programs, the greater availability of goods and a substantial rise in personal income (see p. 944). Business spent large amounts for reconverting plant and equipment and for replenishing depleted inventories. The problem for the future is whether effective demand will remain at a high enough level in the non-government sectors, in the form of consumer expenditure, business investment and exports, to continue to balance the decline in government expenditure. This is of primary importance in maintaining full employment.

Personal Income.—A portion of the national income is not paid out to individuals. Undistributed profits, corporate profit taxes and profits of government enterprises are included in this portion. The remainder of the national income is paid out to persons in the form of salaries and wages, net income of unincorporated business, agricultural and other, rents, dividends, and the like. When the paid-out portion of the national income is added to those personal receipts that do not represent payments for productive operations (i.e., transfer payments), the aggregate known as "personal income" is obtained.

In 1938, personal income amounted to $3,973,000,000, while in 1945 it was $8,814,000,000, an increase of 122 p.c. In the transitional year 1946, the figure rose to $9,172,000,000. The rise in 1946 was due largely to the increase in transfer payments by the Government to individuals in the form of war-service gratuities, re-establishment credits, and family allowances.

A part of personal income is absorbed by direct taxes, part is spent on consumer goods and services while the remainder is saved. The aggregate of personal income less direct taxes is known as "disposable income". Consumer expenditure depends on a number of factors including the size of past savings, credit facilities and the price level. But it depends most of all on disposable income. Accordingly, this aggregate is very useful in forecasting the size of gross national product and employment. A table giving the disposition of personal income between taxes, consumer expenditures and savings is in course of preparation.

1.—Net National Income at Factor Cost and Gross National Product at Market Prices, 1939-46

Note.—Figures for 1938 are given at p. 877 of the 1946 Year Book.

(Millions of Dollars)

Item	1939	1940	1941	1942	1943	1944	1945[1]	1946[2]
Salaries, wages and supplementary labour income	2,540	2,860	3,529	4,233	4,790	4,969	4,865	5,112
Military pay and allowances	32	193	386	641	910	1,068	1,132	315
Investment income	782	1,110	1,518	1,765	1,809	1,785	1,916	1,776
Net income of unincorporated business, agricultural and other	867	949	1,081	1,638	1,560	1,863	1,674	2,009
Totals, Net National Income at Factor Cost	**4,221**	**5,112**	**6,514**	**8,277**	**9,069**	**9,685**	**9,587**	**9,212**
Indirect taxes less subsidies	743	843	1,062	1,092	1,125	1,125	1,006	1,237
Depreciation allowances and similar business costs	528	581	684	771	819	771	711	756
Residual error of estimate for reconciliation with Table 2	+3	+92	+75	+156	+111	+190	+174	−76
Totals, Gross National Product at Market Prices	**5,495**	**6,628**	8,335	**10,296**	**11,124**	**11,771**	**11,478**	**11,129**

[1] Subject to revision. [2] Preliminary.

2.—Gross National Expenditure at Market Prices, 1938-46

(Millions of Dollars)

Item	1938	1939	1940	1941	1942	1943	1944	1945[1]	1946[2]
Personal expenditure on consumer goods and services	3,700	3,799	4,293	4,956	5,511	5,896	6,268	6,824	7,383
Government expenditure—									
(a) War—Goods and services, excluding Mutual Aid	37	75	583	1,209	2,330	3,114	3,336	1,816	735
Mutual Aid, etc.	–	–	–	–	1,002	516	961	1,041	200
(b) Non-war	682	703	661	665	683	697	764	850	1,000
Gross Investment at Home—									
(a) Plant and equipment	505	490	667	842	689	571	657	823	1,100
(b) Inventories—									
Wheat Board	88	94	5	−39	35	110	−7	−212	−33
Other	−55	215	337	280	104	−267	−37	−166	308
Current receipts from abroad for goods and services, excluding Mutual Aid, etc.[3]	1,363	1,452	1,802	2,464	2,373	3,456	3,558	3,590	3,225
Deduct current expenditures abroad for goods and services	−1,261	−1,331	−1,627	−1,967	−2,275	−2,858	−3,539	−2,914	−2,865
Residual error of estimate for reconciliation with Table 1	+16	−2	−93	−75	−156	−111	−190	−174	+76
Totals, Gross National Expenditure at Market Prices	**5,075**	**5,495**	**6,628**	**8,335**	**10,296**	**11,124**	**11,771**	**11,478**	**11,129**

[1] Subject to revision. [2] Preliminary. [3] In addition to the exclusion of Mutual Aid, minor adjustments have been made in the figures of Current Receipts; see Tables 1 to 3 of the Section on Canadian Balance of International Payments, pp. 908-909.

3.—Salaries, Wages and Supplementary Labour Income, by Provinces, 1939-44

NOTE.—Figures for 1938 are given at p. 877 of the 1946 Year Book.

(Millions of Dollars)

Province or Territory	1939	1940	1941	1942	1943	1944
Prince Edward Island	8	8	10	10	12	13
Nova Scotia	100	115	144	178	207	220
New Brunswick	67	75	90	106	120	131
Quebec	673	759	960	1,176	1,351	1,418
Ontario	1,073	1,227	1,526	1,807	2,017	2,053
Manitoba	142	153	180	201	219	235
Saskatchewan	101	109	123	136	149	163
Alberta	130	142	169	188	212	229
British Columbia	243	269	323	427	499	503
Yukon and Northwest Territories	3	3	4	4	4	4
Canada	**2,540**	**2,860**	**3,529**	**4,233**	**4,790**	**4,969**

4.—Net Income of Unincorporated Business, by Provinces, 1939-44[1]

NOTE.—Figures for 1938 are given at p. 878 of the 1946 Year Book.

(Millions of Dollars)

Province or Territory	1939	1940	1941	1942	1943	1944
Prince Edward Island	6	7	8	11	14	13
Nova Scotia	25	30	32	39	48	49
New Brunswick	20	23	28	36	43	43
Quebec	185	209	240	288	327	343
Ontario	287	313	393	486	493	539
Manitoba	59	67	83	137	146	152
Saskatchewan	129	121	109	315	218	376
Alberta	96	115	106	231	164	231
British Columbia	59	63	80	93	104	115
Yukon and Northwest Territories	1	1	2	2	3	2
Canada	**867**	**949**	**1,081**	**1,638**	**1,560**	**1,863**

[1] Included in this table is income of farm operators from current farm production in the amounts shown below; these figures are not to be taken as total income of persons living on farms:—

Province or Territory	*1939*	*1940*	*1941*	*1942*	*1943*	*1944*
			(Millions of Dollars)			
Prince Edward Island	4	4	5	8	10	9
Nova Scotia	9	11	10	12	17	15
New Brunswick	8	11	13	20	25	24
Quebec	82	97	112	143	178	179
Ontario	130	142	197	274	275	307
Manitoba	36	42	54	105	114	116
Saskatchewan	110	100	85	288	190	344
Alberta	72	90	78	197	129	190
British Columbia	15	16	24	31	42	45
Yukon and Northwest Territories	Nil	Nil	Nil	Nil	Nil	Nil
CANADA	466	513	578	1,078	980	1,227

5.—Personal Income Payments, 1939-46

NOTE.—The residual error shown in Tables 1 and 2 has not been taken into account in this table. Figures for 1938 are given at p. 878 of the 1946 Year Book.

(Millions of Dollars)

Item	1939	1940	1941	1942	1943	1944	1945[1]	1946[2]
Net national income at factor cost	4,221	5,112	6,514	8,277	9,069	9,685	9,587	9,212
Transfer payments from governments and business to individuals	347	342	327	357	396	501	849	1,469
Less: Employer and employee contributions to social security and industrial pension funds	*53*	*59*	*96*	*144*	*185*	*173*	*179*	*198*
Less: Components of investment income not paid out to individuals	*344*	*641*	*1,033*	*1,235*	*1,303*	*1,289*	*1,443*	*1,311*
Totals, Personal Income Payments	**4,171**	**4,754**	**5,712**	**7,255**	**7,977**	**8,724**	**8,814**	**9,172**

[1] Revised preliminary. [2] Preliminary.

PART III.—DOMINION, PROVINCIAL AND MUNICIPAL FINANCE

Section 1.—Combined Statistics of Public Finance for All Governments*

The purpose of this Section is to present combined statistics of public finance for all governments of Canada—Dominion, Provincial and Municipal. Table 1 presents the combined debt of all governments as at the governmental fiscal year ends nearest Dec. 31, 1945, while the combined revenues and expenditures presented in Tables 3 and 4, respectively, are for governmental fiscal years ended nearest Dec. 31, 1944.

Combined Debt.—The statistics of provincial and municipal debt appear in greater detail in Tables 33 and 40, respectively. The rapid growth of the combined debt during the war period 1942-45 as shown in Table 2, has been due to the fact that large increases in the Dominion debt have overshadowed considerable reductions in provincial and municipal debt. However, it should be noted that the Dominion was able to finance the War without recourse to the issue of foreign pay bonds, and that the large increase in bonds outstanding represents additions to internal rather than external debt.

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* Revised under the direction of J. H. Lowther, Director, Public Finance Division, Dominion Bureau of Statistics.

1.—Composition of Total Debt of All Governments in Canada, 1945, with Totals for 1944

NOTE.—These figures are as at the governmental fiscal year ends nearest Dec. 31, 1945.

Item	Dominion	Provincial	Municipal[6]	Total	Deduct Inter-governmental Debt	Combined Governmental Debt
	$'000	$'000	$'000	$'000	$'000	$'000
Direct Debt—						
Funded debt	14,823,088	1,641,663	-	-	-	-
Less: Sinking funds	-	195,062	-	-	-	-
Net funded debt	14,823,088	1,446,601	-	-	-	-
Treasury bills	1,446,000[1]	210,149	-	-	-	-
Savings deposits	35,537	48,448	-	-	-	-
Temporary loans	-	25,790	-	-	-	-
Other direct liabilities	1,784,734[2]	73,347	-	-	-	-
Totals, Direct Debt (less sinking funds)	**18,089,359**	**1,804,335**	-	-	-	-

For footnotes, see end of table, p. 948.

1.—Composition of Total Debt of All Governments in Canada, 1945, with Totals for 1944—concluded

Item	Dominion	Provincial	Municipal[6]	Total	Deduct Inter-governmental Debt	Combined Governmental Debt
	$'000	$'000	$'000	$'000	$'000	$'000
Indirect Debt—						
Guaranteed bonds	588,472[3]	135,134	–	–	–	–
Less: Sinking funds	4,851[4]	4,627	–	–	–	–
Net guaranteed bonds	583,621	130,507	–	–	–	–
Loans under the Municipal Improvement Assistance Act, 1938	–	5,317	–	–	–	–
Guaranteed bank loans and other indirect liabilities	9,189[5]	39,725	–	–	–	–
Totals, Indirect Debt (less sinking funds)	**592,810**	**175,549**	–	–	–	–
Grand Totals, 1945	**18,682,169**	**1,979,884**	–	–	–	–
1944	**15,842,556**	**1,991,950**	**1,027,381**	**18,864,877**	**273,686**	**18,591,201**

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[1] Includes $740,000 deposit certificates and $256,000 six-month notes. [2] Excludes provincial debt accounts. [3] Includes both guaranteed and unguaranteed issues of the Canadian National Railways and National Harbours Boards at Mar. 31 to correspond with fiscal year end of the Dominion. [4] Includes deposits in lieu of mortgaged property sold, held by the Canadian National Railways. [5] Excludes contingent liability in respect of the Dominion's guarantee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amounts of which were not finally determined or were indeterminate at the close of the fiscal year, and contingent liabilities of the Canadian National Railways. [6] Municipal figures for Province of Quebec not available at time of going to press (see Table **40**, pp. 994-995).

2.—Combined Debt of All Governments in Canada, 1942-45

Item	1942	1943	1944	1945[1]
	$'000	$'000	$'000	$'000
Direct Debt—				
Funded debt	9,596,267	12,287,936	14,556,235	–
Less: Sinking funds	422,494	436,868	402,038	–
Net funded debt	9,173,773	11,851,068	14,154,197	–
Treasury bills	1,212,651	1,212,096	1,692,099	–
Savings deposits	64,079	69,847	79,240	–
Temporary loans	86,666	65,194	30,848	–
Other direct liabilities	914,753	1,228,080	1,686,283	–
Totals, Direct Debt (less sinking funds)	**11,451,922**	**14,426,285**	**17,642,667**	–
Indirect Debt—				
Guaranteed bonds	977,638	948,893	851,682	–
Less: Sinking funds	17,517	16,892	18,124	–
Net guaranteed bonds	960,121	932,001	833,558	–
Loans under the Municipal Improvements Assistance Act, 1938	–	–	–	–
Guaranteed bank loans and other indirect liabilities	105,337	75,169	114,976	–
Totals, Indirect Debt (less sinking funds)	**1,065,458**	**1,007,170**	**948,534**	–
Grand Totals	**12,517,380**	**15,433,455**	**18,591,201**	–

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[1] Municipal figures for Province of Quebec not available at time of going to press (see Table **40**, pp. 994-995).

Combined Revenues and Expenditures.—Tables 3 and 4 present an overall picture of Dominion, provincial and municipal finance by combining ordinary and capital account revenues and expenditures for each level of government. Since all expenditure—ordinary or capital—is included, amounts provided for debt retirement have been excluded to avoid duplication. The revenues and expenditures presented in these tables are on a "net" basis since the following revenues have been treated as offsets to their corresponding expenditures: shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue exclusive of sinking fund earnings. Certain inter-governmental transfers such as the payments of the Dominion to the provinces for the vacation of tax fields are neither conditional grants nor payments for services and cannot, therefore, be offset against any specific expenditure. These are set out separately in Tables 3 and 4 so as to show grand totals of revenue and expenditure for each level of government as well as totals excluding inter-governmental transfers.

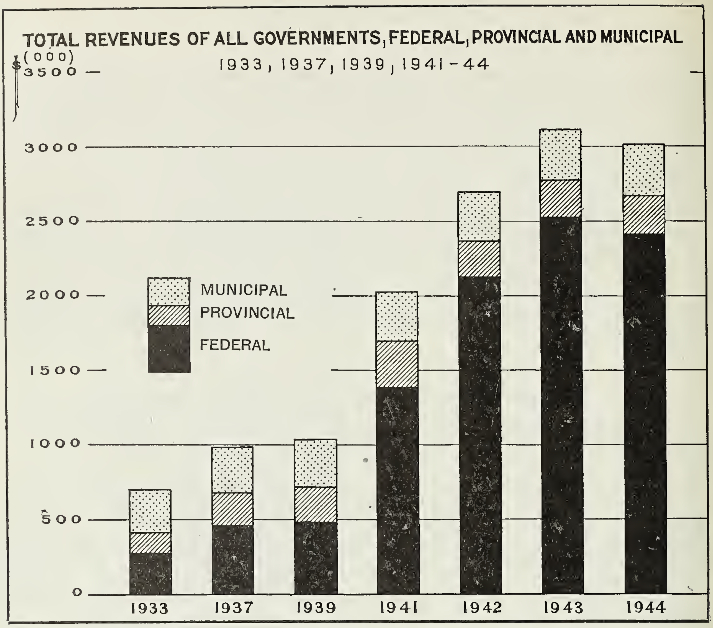
Discrepancies between the amounts shown in Tables 3 and 4 as inter-governmental transfers are due to variations in the fiscal year ends and accounting practices of governments.

3.—Combined Revenues of All Governments in Canada, 1944

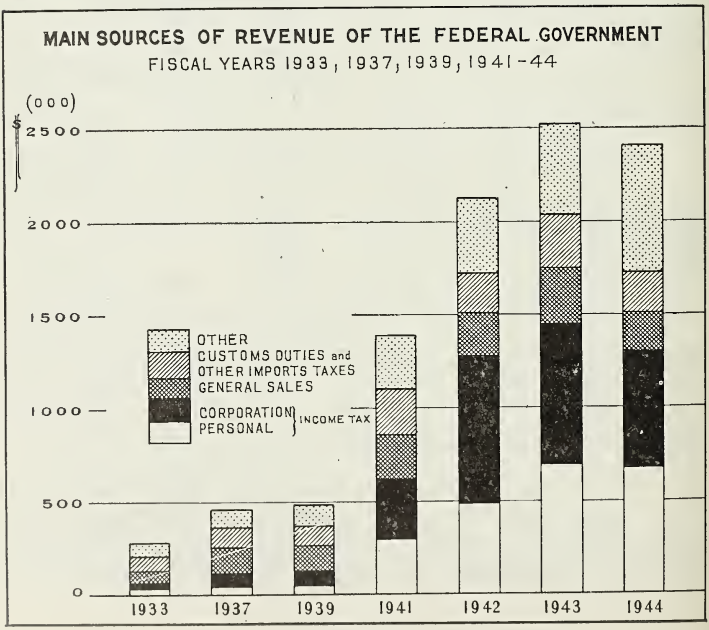
NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31, 1944. See text above *re* inter-governmental transfers.

Item	Dominion	Provincial	Municipal	Total
	$'000	$'000	$'000	$'000
Taxes—				
Corporation	625,241	763	–	626,004
Customs duties and import taxes	214,502	–	–	214,502
Gasoline	29,671	47,082	–	76,753
General sales	209,390	17,856	7,981	235,227
Income—persons	672,755	590	–	673,345
Liquor[1]	71,055	70,434	–	141,489
Succession duties	17,251	23,483	–	40,734
Real and personal property	–	6,511	265,488	271,999
Tobacco	151,605	4,999	–	156,604
Withholding tax	28,599	–	–	28,599
Other taxes	134,557	9,845	25,942	170,344
Totals, Taxes	2,154,626	181,563	299,411	2,635,600
Licences, Permits and Fees—				
Motor-vehicle	–	30,964	–	30,964
Other	4,892	11,076	7,749	23,717
Totals, Licences, etc	4,892	42,040	7,749	54,681
Public domain	1,259	35,020	–	36,279
Canadian National Railway surplus	23,027	–	–	23,027
Municipal public utility contributions	–	–	17,043	17,043
Post Office (net)	10,669	–	–	–
Bank of Canada profits	18,079	–	–	218,643[2]
Bullion and coinage	4,586	–	–	–
Miscellaneous revenue	185,309	3,646	26,945	30,591
Totals, Revenue (excluding Inter-governmental Transfers)	2,402,447	262,269	351,148	3,015,864
Inter-governmental Transfers—				
Dominion subsidies to provinces	–	14,385	–	14,385
Provincial subsidies to municipalities	–	–	3,292	3,292
Vacation of tax fields[3]	–	80,767	3,928	84,695
Gasoline tax guarantee[3]	–	10,603	–	10,603
Nova Scotia highway tax	–	430	–	430
Municipal Commissioner's levy (Manitoba)	–	910	–	910
Interest on Common School Fund and School Lands Fund Debentures	–	1,585	–	1,585
Totals, Inter-governmental Transfers	–	108,680	7,220	115,900
Grand Totals	**2,402,447**	**370,949**	**358,368**	**3,131,764**

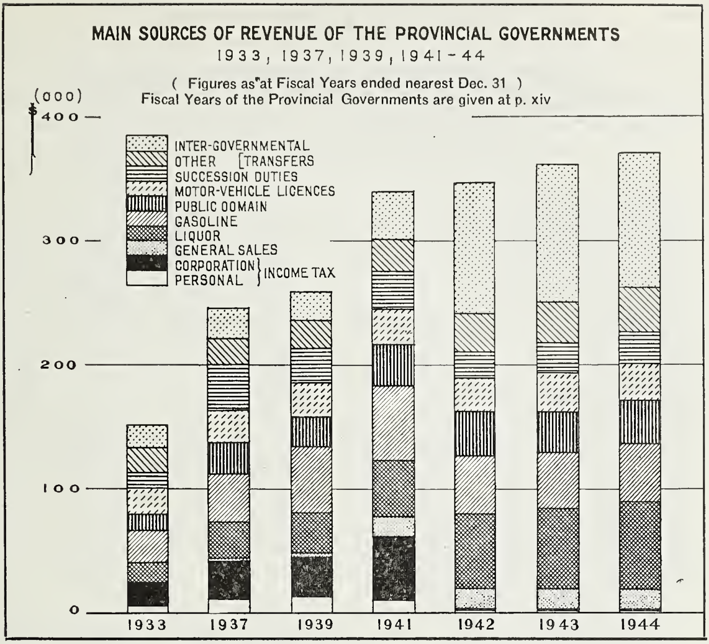
[1] Includes provincial profits from liquor control. [2] Includes $173,103, being excess of refunds over expenditure *re* expansion of industry. [3] As per Dominion-Provincial Taxation Agreement Act.



TOTAL REVENUES OF ALL GOVERNMENTS, FEDERAL, PROVINCIAL AND MUNICIPAL
1933, 1937, 1939, 1941-44

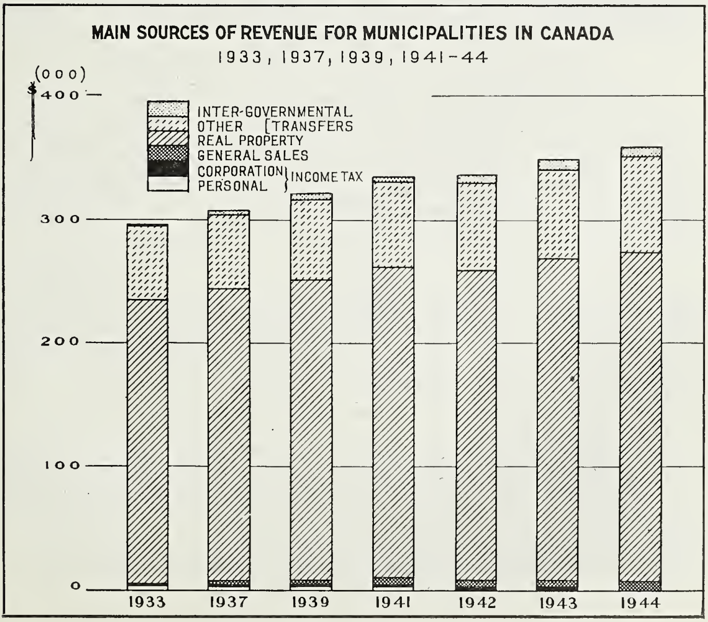


MAIN SOURCES OF REVENUE OF THE FEDERAL GOVERNMENT
FISCAL YEARS 1933, 1937, 1939, 1941-44



MAIN SOURCES OF REVENUE OF THE PROVINCIAL GOVERNMENTS
1933, 1937, 1939, 1941-44

(Figures as at Fiscal Years ended nearest Dec. 31)
Fiscal Years of the Provincial Governments are given at p. xiv



MAIN SOURCES OF REVENUE FOR MUNICIPALITIES IN CANADA
1933, 1937, 1939, 1941-44

4.—Combined Expenditures of All Governments in Canada, 1944

Note.—Figures as at governmental fiscal year ends nearest Dec. 31, 1944. See text on p. 949 *re* intergovernmental transfers.

Item	Dominion	Provincial	Municipal	Total
	$'000	$'000	$'000	$'000
Public Welfare—				
Health and hospital care	1,747	35,978	17,235	54,960
Labour and unemployment insurance	32,855	2,001	–	34,856
Relief	5	3,383	2,852	6,240
Old age and blind pensions	39,544	17,243	273	57,060
Other	5,902	16,857	23,894	46,653
Totals, Public Welfare	80,053	75,462	44,254	199,769
Education	4,704	66,433	99,501	170,638
Transportation	176,498	63,969	42,232	282,699
Agriculture	74,745	14,792	–	89,537
Public domain	11,729	20,366	–	32,095
National defence	2,885,812	–	–	2,885,812
Veterans' pensions and aftercare	109,660	–	–	109,660
Mutual aid	860,465	–	–	860,465
Expansion of industry	[3]	–	–	–
Price control and rationing	192,006	–	–	192,006
Debt charges, net (excluding retirements)[1]	311,411	57,514	37,405	406,330
Other expenditures	95,966	40,995	93,433	230,394
Totals, Expenditure (excluding Inter-governmental Transfers)	4,803,049	339,531	316,825	5,459,405
Inter-governmental Transfers—				
Dominion subsidies to provinces	14,445	–	–	14,445
Provincial subsidies to municipalities	–	3,290	–	3,290
Vacation of tax fields[2]	82,977	–	–	82,977
Gasoline tax guarantee[2]	10,357	–	–	10,357
Nova Scotia highway tax	–	–	440	440
Municipal Commissioner's Levy (Manitoba)	–	–	878	878
Interest on Common School Fund and School Lands Fund Debentures	1,585	–	–	1,585
Totals, Inter-governmental Transfers	109,364	3,290	1,318	113,972
Grand Totals	**4,912,413**	**342,821**	**318,143**	**5,573,377**

[1] Excludes interest on common school fund and school lands fund debentures shown below under intergovernmental transfers. [2] As per Dominion-Provincial Taxation Agreement Act. [3] Refunds in 1944-45 exceeded expenditures. (See Table 3, footnote 2.)

Section 2.—Dominion Public Finance*

A sketch of public finance, from the French regime to the outbreak of the War of 1914-18, appears at pp. 742-743 of the 1941 Year Book, while detailed sketches *re* tax changes from 1914 to 1938 will be found in issues of the Year Book beginning with the 1926 edition. An outline of the financing of Canada's war effort, including the more important changes in taxation during the war years from 1939 to 1945 is given at pp. 918-923 of the 1945 Year Book. Tax changes included in the 1945-46 and 1946-47 Budgets are given at pp. 883-884 of the 1946 edition.

The 1947-48 Budget.—The Budget for the year ended Mar. 31, 1948, was presented to Parliament on Apr. 29, 1947.† The financial accounts for the fiscal year 1946-47 showed revenues of $2,984,277,000 compared with expenditures of $2,632,127,000 leaving a surplus for the year of about $352,000,000. After taking account of the effect of the tax changes outlined below, a surplus of $190,000,000 was forecast for the fiscal year 1947-48.

The principal features of the tax changes made were:—

Personal Income Tax—

> A new schedule of rates effective July 1, 1947, reduced income taxes, on the average, by 29 p.c., compared with the rates in effect for the first half of 1947. Reductions ranged from 54 p.c. in the bottom brackets to 6 p.c. or 7 p.c. in the top brackets. Exemptions and allowances remained as established in the 1946-47 Budget.

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* Revised under the direction of Dr. W. C. Clark, C.M.G., Deputy Minister, Department of Finance, Ottawa.

† Copies of the 1947 Budget may be obtained on application from the Department of Finance, Ottawa.

Corporation and Excess Profits Taxes—

Corporation income tax at the rate of 30 p.c., plus a tax of 15 p.c. on excess corporation profits was continued. The excess profits tax is to be dropped, however, at the end of 1947.

A 5 p.c. withholding tax on dividends paid by wholly owned Canadian subsidiaries to their parent companies abroad was introduced.

Subsection 1.—Balance Sheets of the Dominion

Table **5** gives the Balance Sheets of the Dominion for 1942-46. On the asset side, accounts classified as *active* assets are shown; these represent cash or investments that are interest-producing or have a readily realizable cash value. On the liability side, such liabilities as have been ascertained and brought into the accounts are given. No liability is shown for interest accrued but not due, nor for current obligations incurred for supplies or services but not paid for at the end of the fiscal year. Indirect liabilities under guarantees are not reflected in the Balance Sheets, but are set out in a special schedule. (See p. 978.)

The excess of liabilities over active assets, designated the *net debt*, is analysed in a statement appended to the Balance Sheet, and is apportioned to non-active assets, which include capital expenditures and non-productive investments, and to accumulated deficits in Consolidated Deficit Account.

5.—Balance Sheets of the Dominion of Canada, as at Mar. 31, 1942-46

NOTE.—Dashes in this table indicate that the corresponding stub item is not applicable for those years.

Item	ASSETS				
	1942	1943	1944	1945	1946
Active Assets—	$	$	$	$	$
Cash	803,243,657	91,908,327	18,239,121	157,766,568	808,611,430
Departmental working capital advances	6,418,681	6,839,988	7,813,296	7,373,699	9,327,052
Loans and Advances—					
To railway and shipping companies	446,938,591	576,663,686	572,756,589	656,364,583	699,528,379
To Foreign Exchange Control Board	725,000,000	400,000,000	585,000,000	850,000,000	1,550,000,000
To sundry Government agencies	145,081,450	187,762,676	305,858,515	282,169,911	275,657,064
To Provincial and Municipal Governments	163,990,778	163,092,312	162,655,193	178,253,940	173,903,894
To United Kingdom and other governments	152,169,281	999,904,469	1,190,124,511	1,151,852,580	817,311,425
Miscellaneous	29,412,032	32,961,699	28,405,282	35,066,038	19,513,724
Investments—					
Bank of Canada capital stock	5,920,000	5,920,000	5,920,000	5,920,000	5,920,000
Central Mortgage and Housing capital	-	-	-	-	25,000,000
Central Mortgage Bank capital stock	250,000	250,000	250,000	250,000	-
Canadian Farm Loan Board	36,537,282	34,029,927	29,025,335	24,024,189	21,623,227
Miscellaneous	41,873,851	34,228,796	190,160,114	343,712,367	162,169,357
Provincial debt accounts	2,296,152	2,296,152	2,296,152	2,296,152	2,296,152
Deferred charges—unamortized discounts and commissions on loans	55,575,167	74,958,535	81,660,678	86,739,038	92,551,071
Sundry suspense accounts	144,363	401,214,256	538,873,551	757,030,444	1,025,027,959
Totals, Active Assets	**2,614,851,285**	**3,012,030,823**	**3,719,038,337**	**4,538,819,509**	**5,688,440,734**
Less—Reserve for possible losses on ultimate realization of active assets	50,000,000	75,000,000	100,000,000	125,000,000	150,000,000
Net Totals	**2,564,851,285**	**2,937,030,823**	**3,619,038,337**	**4,413,819,509**	**5,538,440,734**
Balance of liabilities over active assets, being net debt Mar. 31	4,045,221,161	6,182,849,101	8,740,084,893	11,298,362,018	13,421,405,449
Totals, Gross Debt	**6,610,072,446**	**9,119,879,924**	**12,359,123,230**	**15,712,181,527**	**18,959,846,183**

5.—Balance Sheets of the Dominion of Canada, as at Mar. 31, 1942-46—concluded

Item	NET DEBT				
	1942	1943	1944	1945	1946
	$	$	$	$	$
Non-Active Assets—					
Public works, canals	240,303,982	240,261,818	240,257,732	240,237,152	240,214,718
Public works, railways	425,957,326	425,961,949	426,384,171	427,013,772	429,327,013
Public works, miscellaneous	307,901,876	311,112,485	313,178,675	315,005,210	316,847,001
Military property and stores	12,572,185	12,572,185	12,616,533	12,616,533	12,616,533
Territorial accounts	9,895,948	9,895,948	9,895,948	9,895,948	9,895,948
Railway accounts (old)	62,791,435	62,791,436	62,791,435	62,791,435	62,791,435
Canadian National Railways Securities Trust stock	267,283,019	298,842,882	336,680,463	359,080,515	381,711,556
Canadian National Railways stock	18,000,000	18,000,000	18,000,000	18,000,000	18,000,000
Canadian National Steamships (loans non-active)	13,871,969	13,871,969	13,707,446	13,158,350	13,158,350
Miscellaneous investments and other accounts (non-active)	99,366,032	99,966,500	99,516,760	99,987,614	100,501,840
Totals, Non-Active Assets	**1,457,943,772**	**1,493,277,172**	**1,533,029,163**	**1,557,786,530**	**1,585,064,394**
Consolidated Deficit Account	2,587,277,389	4,689,571,929	7,207,055,730	9,740,575,488	11,836,341,055
Totals, Net Debt	**4,045,221,161**	**6,182,849,101**	**8,740,084,893**	**11,298,362,018**	**13,421,405,449**
	LIABILITIES[1]				
	1942	1943	1944	1945	1946
	$	$	$	$	$
Floating debt	67,822,988	121,800,080	106,450,236	165,067,379	182,394,475
Deposit and trust accounts	341,240,964	617,426,832	862,876,698	993,601,448	1,366,378,362
Insurance, pension and guaranty accounts	293,972,430	326,837,109	366,640,537	406,471,918	457,993,538
Deferred credits	1,121,605	7,179,721	16,935,035	26,378,546	25,348,721
Sundry suspense accounts	3,097,731	37,097,518	36,031,174	81,334,200	66,491,899
Provincial debt accounts	11,919,969	11,919,969	11,919,969	11,919,968	11,919,969
Reserve for certain contingent liabilities	18,447,123	11,786,980	21,438,040	43,644,493	41,677,278
Reserve for conditional benefits—Veterans' Land Act, 1942	-	-	-	-	464,175
Funded debt, unmatured	5,872,449,636	7,985,831,715	10,936,831,541	13,983,763,575	16,807,177,765
Totals, Liabilities or Gross Debt	**6,610,072,446**	**9,119,879,924**	**12,359,123,230**	**15,712,181,527**	**18,959,846,183**

[1] Direct liabilities only. Indirect liabilities or guarantees given by the Dominion of Canada are dealt with in Table 26, p. 978.

Subsection 2.—Revenues and Expenditures

In the year ended Mar. 31, 1946, revenues showed a slight increase over the previous fiscal year, while expenditures continued to decline. Total revenues of $3,013,185,074 were $325,850,275 higher than in 1945, and $248,167,361 higher than in 1944. Tax revenues were $47,731,739 higher than in 1945 but $234,453,097 lower than the record level of 1944. Non-tax revenues increased by $278,118,536 or 52·2 p.c., chiefly because of an increase of $263,696,824 in Special Receipts.

Total expenditures declined by $109,383,418 or 2·1 p.c. from 1945. Expenditures for war and demobilization accounted for $4,002,949,197 or 77·9 p.c. of the total, a decline of $415,497,118 from 1945. Ordinary expenditures, covering the normal operating costs of Government increased by $294,526,186, chiefly because of the introduction of Family Allowance payments which amounted to $172,632,147, and an increase of $90,139,681 in interest on the public debt.

Special expenditures amounted to $17,358,402 as compared with $7,505,786 in 1945. This increase was due chiefly to higher payments under the Prairie Farm Assistance Act. Expenditures under the heading "Government-Owned Enterprises" amounted to $1,333,417, $24,641 less than in 1945. The over-all deficit for the year amounted to $2,123,043,432, or $435,233,693 less than that for the previous fiscal year.

6.—Details of Revenues, Years Ended Mar. 31, 1942-46

NOTE.—Dashes in this table indicate that the corresponding stub item is not applicable for those years.

Item	1942	1943	1944	1945	1946
Ordinary Revenues—	$	$	$	$	$
Tax Revenues—					
Customs import duties....	142,392,233	118,962,839	167,882,089	115,091,376	128,876,811
Excise duties..............	110,090,940	138,720,723	142,124,331	151,922,140	186,726,318
Income tax................	403,606,269	860,188,672[1]	1,036,757,035[1]	977,758,068[1]	932,729,273
National Defence tax......	106,636,747	–	–	–	–
Excess profits tax..........	135,168,345	434,580,677[1]	428,717,840[1]	341,305,357[1]	426,696,483
Sales tax..................	236,183,545	250,478,438	304,913,484	209,389,876	326,252,799
War exchange tax..........	100,873,982	94,553,380	118,912,840	98,164,427	41,198,213
Succession duties..........	6,956,574	13,273,483	15,019,830	17,250,798	21,447,573
Gasoline tax..	24,752,396	24,897,924	24,930,255	29,670,693	29,836,191
Other taxes...............	94,251,806	131,063,825	197,553,780	214,073,913	108,594,726
Totals, Tax Revenues...	1,360,912,837	2,066,719,961	2,436,811,484	2,154,626,648	2,202,358,387
Non-Tax Revenues—					
Post Office................	45,993,872	48,868,762	61,070,919	66,055,520	68,613,113
Return on investments....	21,748,701	41,242,237[2]	48,281,313[2]	60,749,185[2]	70,914,626[2]
Bullion and coinage........	4,767,481	5,883,515	8,731,930	4,586,427	4,954,034
Premium, discount and exchange..................	11,855,510	394,880	2,153,879	–	–
Other.....................	18,545,802	19,689,403	13,044,899	14,079,593	16,321,694
Totals, Non-Tax Revenues.	102,911,366	116,078,797	133,282,940	145,470,725	160,803,467
Totals, Ordinary Revenues	**1,463,824,203**	**2,182,798,758**	**2,570,094,424**	**2,300,097,373**	**2,363,161,854**
Special Receipts (sundry receipts and credits).........	**21,060,094**	**61,961,746**	**193,636,614**	**385,905,221**	**649,602,045**
Other Credits—					
Refunds on capital account...	1,021,653	102,616	93,305	728,195	375,643
Credits to non-active accounts	2,630,393	4,633,057	1,193,370	604,010	45,532
Totals, Other Credits......	**3,652,046**	**4,735,673**	**1,286,675**	**1,332,205**	**421,175**
Grand Totals, Revenues.	**1,488,536,342**	**2,249,496,177**	**2,765,017,713**	**2,687,334,799**	**3,013,185,074**

[1] Excludes refundable portion. [2] Includes interest on investments, profits of Bank of Canada, Central Mortgage Bank and other items.

7.—Details of Expenditures, Years Ended Mar. 31, 1942-46

NOTE.—Dashes in this table indicate that the corresponding stub item is not applicable for those years.

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
Ordinary Expenditures—					
Agriculture..............................	8,429,788	8,492,275	8,841,403	9,424,274	10,318,960
Auditor General's Office...............	456,907	441,506	347,589	360,851	379,238
Civil Service Commission..............	399,038	426,737	455,918	460,441	479,632
External Affairs, including Office of Prime Minister......................	1,047,490	1,156,066	1,596,406	1,974,367	4,582,676
Finance—					
Interest on public debt..............	155,017,901	188,556,249	242,681,180	318,994,821	409,134,502
Cost of loan flotations..............	16,349,517	13,837,949	19,285,402	20,678,683	22,310,720
Subsidies to provinces...............	14,408,622	14,490,085	14,449,353	14,445,267	14,446,629
Payments to provinces under Dominion-Provincial taxation agreements.	21,120,443	94,214,558	95,434,862	93,333,930	98,051,769
Other grants and contributions.......	530,944	525,860	528,458	530,505	617,505
Superannuation......................	435,018	391,397	345,628	325,316	298,988
Government contribution to Superannuation Fund....................	2,347,226	2,341,302	2,298,594	2,340,793	2,696,038
Old age pensions[1].....................	29,611,796	29,976,014	30,377,468	32,187,185	[2]
Premiums, discount and exchange....	-	-	-	16,348,193	14,733,764
Wartime Prices and Trade Board—					
Dominion Fuel Board Administration, coal subsidies and subventions.	4,880,172	[3]	[3]	[3]	[3]
Other departmental expenditure.....	3,816,899	4,187,983	4,481,128	4,724,155	13,404,607
Fisheries..............................	1,679,072	1,698,909	1,696,035	2,159,170	3,262,018
Governor General and Lieutenant-Governors........................	225,925	224,627	222,042	222,757	226,615
Insurance.............................	180,924	182,000	183,132	185,305	198,964

For footnotes, see p. 956.

7.—Details of Expenditures, Years Ended Mar. 31, 1942-46—continued

Item	1942	1943	1944	1945	1946
Ordinary Expenditures—concluded	$	$	$	$	$
Justice Department—					
Justice	2,384,747	2,667,164	2,672,667	2,696,188	3,258,067
Penitentiaries	2,786,552	2,771,615	2,799,368	2,935,727	2,847,964
Labour Department—					
Labour (including technical education)	803,424	716,581	1,169,462	1,446,016	1,620,934
Unemployment Insurance Act, 1940—					
Administration	2,343,599	4,657,394	5,170,900	5,112,627	6,184,964
Government contribution	7,287,122	11,487,058	12,344,422	12,746,179	12,513,779
Government annuities—payments to maintain reserve	616,982	497,790	32,180	257,288	293,798
Legislation—					
House of Commons	1,406,298	1,826,852	1,916,484	1,613,923	2,235,744
Library of Parliament	72,503	76,533	76,873	71,682	73,846
Senate	423,567	554,814	562,023	484,349	726,817
General	47,255	60,608	84,455	94,644	98,035
Chief Electoral Office, including elections	281,541	1,447,357	88,128	178,766	3,091,391
Mines and Resources—					
Administration and general expenditures	175,735	160,574	169,558	167,623	164,776
Immigration and Colonization	1,289,261	1,267,701	1,260,594	1,309,034	1,523,246
Indian Affairs	5,000,456	4,977,854	5,177,044	6,161,994	4,466,983
Lands, Parks and Forests	1,958,992	1,753,289	1,586,162	1,831,040	2,688,657
Surveys and Engineering	1,128,453	1,129,149	1,270,934	1,610,166	1,322,694
Mines and Geological Survey	1,155,448	1,139,594	1,124,281	1,215,674	1,302,733
Munitions and Supply—					
Dominion Fuel Board Administration, coal subsidies and subventions	[4]	4,965,434	2,165,110	2,737,031	2,339,285
Other departmental expenditure	12,000	12,000	14,150	19,270	14,012
National Defence—					
General Services	260,482	415,128	68,173	67,294	126,543
National Health and Welfare—					
Administration and general expenditures	–	–	–	1,725,263	7,293,560
Family allowances	–	–	–	–	172,632,147
Old age pensions[1]	[4]	[4]	[4]	[4]	33,715,092
National Revenue (including Income Tax)	13,427,996	15,190,523	17,720,659	20,114,268	22,630,175
National War Services	682,058	427,627	547,158	837,719	5,183
Pensions, war, military and civil	41,244,221	39,699,351[5]	38,997,920[5]	[6]	[6]
Pensions and National Health	14,089,972	14,079,352	15,843,443	[2,6]	[2,6]
Post Office	41,501,869	44,741,987	48,485,009	54,629,281	57,729,646
Privy Council	54,105	62,126	79,800	81,030	418,621[7]
Public Archives	123,152	122,656	123,735	123,558	126,877
Public Printing and Stationery	194,634	245,422	234,762	232,299	238,136
Public Works	11,937,005	12,013,845	12,280,674	13,168,726	16,283,531
Reconstruction	–	–	–	969,206	2,089,020
Royal Canadian Mounted Police	5,603,294	6,241,962	6,677,804	7,182,689	7,283,610
Secretary of State	822,692	819,518	831,371	863,541	954,418
Soldier Settlement	564,369	567,287	836,945	[6]	[6]
Trade and Commerce—					
Mail subsidies and steamship subventions	615,655	615,596	799,652	868,699	993,773
Canada Grain Act	1,909,339	1,918,036	2,089,136	2,333,381	2,302,566
Other departmental expenditures	6,199,670	4,566,049	4,196,194	3,497,390	4,052,984
Transport—					
Administration and miscellaneous expenditures	385,779	374,947	399,904	404,850	410,728
Air Service	3,385,784	3,334,146	3,594,187	3,939,341	4,195,664
Marine	4,009,578	4,256,974	4,503,797	4,894,037	4,890,409
Railways and Canals	3,694,147	3,339,580	4,086,574	4,259,690	4,392,423
Maritime Freight Rates Act	3,935,177	4,894,281	5,057,857	4,733,209	4,345,513
Railway Grade Crossing Fund	25,101	11,792	16,613	33,954	31,918
Veterans Affairs	–	–	–	81,031,273	72,849,232
Totals, Ordinary Expenditures	**441,777,696**	**561,251,063**	**630,380,760**	**767,375,933**	**1,061,902,119**

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[1] Includes pensions to blind persons. [2] Included under National Health and Welfare. [3] Included under Munitions and Supply. [4] Included under Department of Finance. [5] Excludes civil pensions. [6] Included under Department of Veterans Affairs. [7] Includes Federal District Commission.

7.—Details of Expenditures, Years Ended Mar. 31, 1942-46—concluded

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
Capital Expenditures—					
Railways	4,517	37,555	692,382	629,639	2,313,241
Public Works	3,425,930	3,238,130	1,929,596	2,534,113	2,194,999
Totals, Capital Expenditures	**3,430,447**	**3,275,685**	**2,621,978**	**3,163,752**	**4,508,240**
Special Expenditures—					
Unemployment relief	8,500,359	5,013,305	3,751,537	3,868,682	4,422,678
Western drought area relief	12,270,822	406,011	2,794,424	1,483,113	12,379,224
Wheat acreage reduction payments including administration	30,633,764	25,868,562	30,950,346	1,967,546	556,500
Canadian Wheat Board—					
Provision for reserve to meet deficits resulting from operations not previously provided for	12,570,828	–	–	186,445	–
Totals, Special Expenditures	**63,975,773**	**31,287,878**	**37,496,307**	**7,505,786**	**17,358,402**
War and Demobilization Expenditures—					
War and Demobilization Appropriation Acts	1,339,674,152	2,724,248,890	3,674,419,874	3,615,100,612	2,668,180,597
War Appropriation (United Kingdom Financing) Act, 1942	–	1,000,000,000	–	–	–
War Appropriation (United Nations Mutual Aid) Act, 1943 and 1944	–	–	912,603,220	803,345,703	909,768,600
Write-off of Air Training Plan Loans and Advances as per United Kingdom Financial Agreement Act, 1946	–	–	–	–	425,000,000
Totals, War and Demobilization Expenditures	**1,339,674,152**	**3,724,248,890**	**4,587,023,094**	**4,418,446,315**	**4,002,949,197**
Government-Owned Enterprises—					
Losses Charged to Consolidated Deficit Account—					
Prince Edward Island Car Ferry	423,651	591,095	698,365	773,384	687,800
National Harbours Board	32,515	–	29,488	58,907	85,859
Loans and Advances (Non-Active)—					
National Harbours Board	758,090	657,526	579,108	525,767	559,758
Totals, Government-Owned Enterprises	**1,214,256**	**1,248,621**	**1,306,961**	**1,358,058**	**1,333,417**
Other Charges—					
Write-down of Assets Chargeable to Consolidated Deficit Account—					
Reduction in soldier and general land settlement loans	270,826	50,707	553,385	324,875	35,517
Yearly established losses in seed grain and relief accounts	58,408	42,058	28,847	36,006	45,436
Cancellation of Canadian Farm Loan Board capital stock	9,613	7,355	4,592	1,146	962
Reduction of Immigration and Colonization Assisted Passage Loans	97	–	–	–	–
Provision for reserve for possible losses on ultimate realization of active assets	25,000,000	25,000,000	25,000,000	25,000,000	25,000,000
Provision for reserve for conditional benefits under Veterans' Land Act, 1942	–	–	–	–	464,175
Write-down of Active Assets to Non-Active Assets—					
Canadian National Railways securities trust stock—reduction due to line abandonments	2,539,187	4,575,999	*−252,115*[1]	*−626,872*[1]	*−2,125,089*[1]
Non-Active Accounts—					
Capital gain on repatriation of Canadian National Railways securities	99,274	11,072,593	2,430,284	–	–
Increase in Dominion's equity in the Canadian National Railways due to surplus earnings of the Canadian National Railways System for the calendar years 1941, 1942, 1943, 1944 and 1945	4,016,327	25,063,268	35,639,412	23,026,925	24,756,130
Totals, Other Charges	**31,993,732**	**65,811,980**	**63,424,405**	**47,762,080**	**48,177,131**
Grand Totals, Expenditures	**1,885,066,056**	**4,387,124,117**	**5,322,253,505**	**5,245,611,924**	**5,136,228,506**

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[1] Not comparable with previous years due to a change in the method of dealing with the item.

8.—Principal Items of Revenues, Years Ended Mar. 31, 1930-46

Year	Customs Duties	Excise Duties	Income Tax	Excess Profits Tax[1]	Banks, Insurance Companies, etc.
	$	$	$	$	$
1930	179,429,920	65,035,701	69,020,726	173,300	1,482,836
1931	131,208,955	57,746,808	71,048,022	34,430	1,503,520
1932	104,132,677	48,654,862	61,254,400	3,000	1,402,273
1933	70,072,932	37,833,858	62,066,697	54	2,153,685
1934	66,305,356	35,494,220	61,399,171	Nil	2,077,227
1935	76,561,975	43,189,655	66,808,066	"	2,118,580
1936	74,004,560	44,409,797	82,709,803	"	2,041,776
1937	83,771,091	45,956,857	102,365,242	"	1,984,257
1938	93,455,750	52,037,333	120,365,532	"	1,973,679
1939	78,751,111	51,313.658	142,026,138	"	1,905,315
1940	104,301,487	61,032,044	134,448,566	"	1,874,923
1941	130,757,012	88,607,559	248,143,022[2]	23,995,269	2,505,556
1942	142,392,232	110,090,941	510,243,017[2]	135,168,345	2,636,623
1943	118,962,839	138,720,723	860,188,672[3]	434,580,677[3]	12,281,142
1944	167,882,089	142,124,331	1,036,757,035[3]	428,717,840[3]	7,691,066
1945	115,091,376	151,922,140	977,758,068[3]	341,305,357[3]	8,233,638
1946	128,876,811	186,726,318	932,729,273	426,696,483	8,971,967

Year	Sales and Other Excise Taxes	Succession Duties	Post Office	Interest on Investments	Total Revenue[4]
	$	$	$	$	$
1930	63,409,143	Nil	33,345,385	13,518,205	453,007,129
1931	34,734,661	"	30,212,326	10,421,224	357,720,435
1932	59,606,391	"	32,234,946	9,330,125	334,508,081
1933	82,191,575	"	30,928,317	11,220,989	311,735,286
1934	106,575,575	"	30,893,157	11,148,231	324.660,590
1935	112,192,069	"	31,248,324	10,963,478	361,973,764
1936	112,733,048	"	32,507,889	10,614,125	372,595,996
1937	152,473,422	"	34,274,552	11,231,035	454,153,747
1938	180,818,767	"	35,546,161	13,120,523	516,692,749
1939	161,710,572	"	35,288,220	13,163,015	502,171,354
1940	166,027,944	"	36,729,105	13,393,432	562,093,459
1941	284,167,032	"	40,383,366	14,910,554	872,169,645
1942	453,425,105	6,956,574	45,993,872	21,748,701	1,488,536,342
1943	488,712,425	13,273,483	48,868,762	41,242,237[5]	2,249,496,177
1944	638,619,292	15,019,831	61,070,919	48,281,313[5]	2,765,017,713
1945	543,065,271	17,250,798	66,055,520	60,749,186[5]	2,687,334,799
1946	496,909,961	21,447,573	68,613,113	70,914,626[5]	3,013,185,074

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[1] Belated revenue from the business profits tax not charged on profits accruing after Dec. 31, 1920, continued to be received until 1933.

[2] Includes National Defence Tax.

[3] Excludes refundable portion.

[4] Includes other items not specified.

[5] Includes interest on investments, profits of Bank of Canada, Central Mortgage Bank and other items.

9.—Principal Items of Expenditures, Years Ended Mar. 31, 1930-46

NOTE.—Figures for the years 1868-1913, inclusive, are given at pp. 845-847 of the 1938 Year Book; those for 1914-29 at p. 930 of the 1945 edition.

Year	Ordinary Expenditures							
	Interest on Debt	Old Age Pensions	Pensions, War, Military and Civil	Public Works	National Defence	Subsidies to Provinces	Post Office	Total Ordinary Expenditures[1]
	$	$	$	$	$	$	$	$
1930...	121,566,213	1,537,174	40,406,565	19,819,032	21,986,537	12,496,958	36,557,012	363,237,478
1931...	121,289,844	5,658,143	45,965,723	25,452,742	23,736,447	17,435,736	37,891,693	386,584,863
1932...	121,151,106	10,032,410	48,686,389	17,647,854	18,221,632	13,694,970	36,052,208	372,101,318
1933...	134,999,069	11,512,543	45,078,919	13,108,013	13,750,314	13,677,384	31,607,404	354,643,201
1934...	139,725,417	12,313,595	43,883,132	10,827,171	13,476,862	13,727,565	30,553,768	351,771,161
1935...	138,533,202	14,942,459	44,235,808	9,904,494	14,185,772	13,768,953	30,252,310	359,700,909
1936...	134,549,169	16,764,484	43,337,096	12,945,277	17,177,074	13,768,953	31,437,719	372,539,149
1937...	137,410,345	21,149,352	43,356,180	14,518,758	22,923,093	13,735,196	31,906,272	387,112,072
1938...	132,117,422	28,653,005[2]	42,823,277	12,382,073	32,760,307	13,735,336	33,762,269	414,891,410
1939...	127,995,617	29,043,639[2]	42,793,055	15,484,197	34,432,023	13,752,110	35,455,182	413,032,202
1940...	129,315,442	29,976,554[2]	42,868,901	13,065,212	13,118,732	13,768,953	36,725,870	398,323,206
1941...	139,178,670	29,911,700[2]	42,195,709	11,506,678	193,985	13,768,953	38,699,674	390,629.350
1942...	155,017,901	29,611,796[2]	41,244,221	11,937,005	260,482	14,408,622	41,501,869	444,777,696
1943...	188,556,249	29,976,014[2]	39,699,351[3]	12,013,845	415,128	14,490,085	44,741,987	561,251,063
1944...	242,681,180	30.377,468[2]	38,997,920[3]	12,280,674	68,713	14,449,353	48,485,009	630,380,760
1945...	318,994,821	32,227,718[2]	39,371,792[3]	13,168,726	67,293	14,445,267	54,629,281	767,375,932
1946...	409,134,502	33,715,092[2]	39,996,360[3]	16,283,531	126,543	14,446,629	57,729,646	1,061,902,119

Year	Capital Expenditures				Other Expenditures			Total Expenditures
	Public Works	Railways	Canals	Total	War and Demobilization	Other Charges[4]	Total	
	$	$	$	$	$	$	$	$
1930...	8,589,022	6,873,511	10,264,187	25,726,720	Nil	16,302,185	16,302,185	405,266,383
1931...	12,145,264	6,702,854	9,862,574	28,710,692	"	26,272,857	26,272,857	441,568,413
1932...	7,485,438	6,376,207	3,304,298	17,165,943	"	59,475,056	59,475,056	448,742,316
1933...	4,233,789	1,658,812	3,156,328	9,048,929	"	168,677,810	168,677,810	532,369,940
1934...	3,839,751	754,194	1,986,140	6,580,085	"	99,806,659	99,806,659	458,157,905
1935...	6,243,737	525,772	337,907	7,107,416	"	111,298,256	111,298,256	478,106,581
1936...	5,799,341	286,887	457,926	6,544,154	"	153,502,252	153,502,252	532,585,555
1937...	3,236,564	203,045	51,945	3,491,544	"	141,401,816	141,401,816	532,005,432
1938...	4,358,698	71,454	–	4,430,152	"	115,086,555	115,086,555	534,408,118
1939...	5,397,928	26,348	–	5,424,276	"	134,606,619	134,606,619	553,063,098
1940...	7,007,468	22,570	–	7,030,038	118,291,022	157,149,526	275,440,548	680,793,792
1941...	3,350,989	6,821	–	3,357,810	752,045,326	103,568,960	855,614,286	1,249,601,446
1942...	3,425,930	4,517	–	3,430,447	1,339,674,152	97,183,761	1,436,857,913	1,885,066,056
1943...	3,238,130	37,555	–	3,275,685	3,724,248,890	98,348,479	3,822,597,369	4,387,124,117
1944...	1,929,596	692,382	–	2,621,978	4,587,023,094	102,227,673	4,689,250,767	5;322,253,505
1945...	2,534,113	629,639	–	3,163,752	4,418,446,315	56,625,925	4,475,072,240	5,245,611,924
1946...	2,194,999	2,313,241	–	4,508,240	4,002,949,197	66,868,950	4,069,818,147	5,136,228,506

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[1] Includes various non-enumerated items. [2] Includes pensions to blind persons. [3] Excludes civil pensions. [4] For details, see Table **10.**

10.—Analysis of "Other Charges" (Shown in Table 9), Years Ended Mar. 31, 1930-46

Year	Special Expenditures		Government-Owned Enterprises		Other Charges		Total
	Direct Relief, Relief Projects and Other Works	Wheat Bonus and Losses on Grain Marketing Operations, etc.	Losses Charged to Consolidated Fund	Loans and Advances Non-Active	Write-Down of Assets Chargeable to Consolidated Fund	Non-Active Accounts	
	$	$	$	$	$	$	$
1930	Nil	Nil	4,308,357	8,244,950	3,731,536	17,342	16,302,185
1931	4,431,655	"	6,712,239	5,487,941	9,640,997	25	26,272,857
1932	38,295,515	10,908,429	6,631,856	3,112,285	526,971	Nil	59,475,056
1933	36,720,935	1,811,472	62,139,413	66,453,050[1]	105,717	1,447,223	168,677,810
1934	35,898,311	Nil	58,955,388	2,095,773	1,857,087	1,000,100	99,806,659
1935	60,659,856	"	48,407,901	1,728,900	490,191	11,408	111,298,256
1936	79,416,256	22,631,029	48,817,489	2,122,912	514,566	Nil	153,502,252
1937	78,003,702	Nil	43,553,112	665,414	692,473	18,487,115	141,401,816
1938	68,534,364	"	42,745,791	2,087,597	1,579,242	139,561	115,086,555
1939	46,895,407	25,000,000[2]	55,658,306	3,285,188	3,767,718	Nil	134,606,619
1940	54,612,951	34,500,000[3]	41,044,004	1,035,145	23,320,028	2,637,398	157,149,526
1941	27,646,853	15,222,245	17,465,731	715,948	29,878,632[4]	12,639,551	103,568,959
1942	8,500,359	55,475,414	456,166	758,089	27,878,132[4]	4,115,601	97,183,761
1943	5,013,305	26,274,573	591,095	657,526	29,676,119[4]	36,135,861	98,348,479
1944	3,751,537	33,744,770	727,853	579,108	25,586,824[4]	37,837,581	102,227,673
1945	3,868,682	3,637,104	832,291	525,767	25,362,027[4]	22,400,054	56,625,925
1946	4,422,678	12,935,724	773,659	559,758	25,546,090[4]	22,631,041	66,868,950

[1] Includes a write-down of assets amounting to $62,938,239. [2] Reserve against estimated losses on wheat marketing guarantees applicable to the fiscal year 1938-39. [3] Reserve against estimated losses on wheat marketing guarantees applicable to the fiscal year 1939-40 to the extent of $27,000,000. [4] Includes $25,000,000 as reserve against possible losses on assets.

11.—Per Capita Revenues and Expenditures, Years Ended Mar. 31, 1930-46

NOTE.—The years marked with an asterisk (*) are Census years; per capita figures for intercensal years are based on estimated populations, see p. 100. See Tables **6-10** for the figures of revenues and expenditures on which this table is based. Figures for the years 1868-1912, inclusive, will be found at p. 849 of the 1938 Year Book; those for 1913-29 at p. 932 of the 1945 edition.

Year	Per Capita				Year	Per Capita			
	Revenue from Taxation	Total Revenue	Ordinary Expenditure	Total Expenditure		Revenue from Taxation	Total Revenue	Ordinary Expenditure	Total Expenditure
	$	$	$	$		$	$	$	$
1930	37·09	43·68	35·06	39·01	1939	38·67	44·57	36·66	49·09
1931*	28·55	34·33	37·54	42·41	1940	41·14	49·39	35·00	59·82
1932	26·17	32·04	35·72	42·91	1941*	67·63	75·80	33·95	108·61
1933	23·92	29·32	33·35	50·07	1942	116·78	127·73	38·17	161·75
1934	25·31	30·23	32·75	42·66	1943	174·97	190·44	47·52	371·41
1935	28·07	33·38	33·17	44·09	1944	203·49	230·90	52·64	444·45
1936	28·98	34·03	34·02	48·64	1945	177·79	221·74	63·32	432·84
1937	35·00	41·12	35·23	48·17	1946	178·95	244·84	86·28	417·34
1938	40·23	46·33	37·20	47·92					

12.—Per Capita Revenues and Expenditures, by Principal Items, Years Ended Mar. 31, 1942-46

NOTE.—See Table 6 for revenues and Table 7 for expenditures on which these per capita figures are based. Dashes in this table indicate that no revenues were collected or expenditures made under the corresponding headings because the items were not applicable in the years so indicated.

Item	1942	1943	1944	1945	1946
	REVENUES				
Ordinary Revenues—	$	$	$	$	$
Tax Revenues—					
Customs import duties	12·22	10·07	14·02	9·50	10·47
Excise duties	9·45	11·74	11·87	12·54	15·17
Income tax	34·62	72·82	86·58	80·68	75·79
National defence tax	9·15	–	–	–	–
Excess profits tax	11·60	36·79	35·80	28·16	34·67
Sales tax	20·27	21·21	25·46	17·28	26·51
War exchange tax	8·66	8·01	9·93	8·10	3·35
Succession duties tax	0·60	1·12	1·25	1·42	1·74
Gasoline tax	2·12	2·11	2·08	2·45	2·43
Other taxes	8·09	11·10	16·50	17·66	8·82
Totals, Tax Revenues	116·78	174·97	203·49	177·79	178·95
Non-Tax Revenues—					
Post Office	3·95	4·14	5·10	5·45	5·58
Return on investments	2·21	3·49	4·03	5·01	5·76
Bullion and coinage	0·41	0·50	0·73	0·38	0·40
Premium, discount and exchange	1·02	0·03	0·18	–	–
Other	1·24	1·67	1·09	1·16	1·33
Totals, Non-Tax Revenues	8·83	9·83	11·13	12·00	13·07
Totals, Ordinary Revenues	**125·61**	**184·80**	**214·62**	**189·79**	**192·02**
Special Receipts and Other Credits	**2·12**	**5·65**	**16·28**	**31·95**	**52·82**
Grand Totals, Revenues	**127·73**	**190·45**	**230·90**	**221·74**	**244·84**
	EXPENDITURES				
	$	$	$	$	$
Ordinary Expenditures—					
Agriculture	0·72	0·72	0·74	0·78	0·84
Finance—					
Interest on public debt	13·30	15·96	20·27	26·32	33·24
Cost of loan flotations	1·40	1·17	1·61	1·71	1·81
Subsidies to provinces	1·24	1·23	1·21	1·19	1·17
Payments to provinces under Dominion-Provincial taxation agreements	1·81	7,98	7·97	7·70	7·97
Old age pensions [1]	2·54	2·54	2·54	2·66	[2]
Coal subsidies and subventions	0·42	0·42	0·18	0·23	0·19
Fisheries	0·14	0·14	0·14	0·18	0·27
Justice (including penitentiaries)	0·44	0·46	0·46	0·47	0·50
Labour (including technical education, unemployment insurance and Government annuities)	0·95	1·47	1·56	1·61	1·67
Mines and Resources—					
Immigration and Colonization	0·11	0·11	0·11	0·11	0·12
Indian Affairs	0·43	0·42	0·43	0·51	0·36
Mines and Geological Survey	0·10	0·10	0·09	0·10	0·11
National Health and Welfare—					
Administration and general expenditures	–	–	–	0·14	0·59
Family allowances	–	–	–	–	14·02
Old age pensions [1]	[3]	[3]	[3]	[3]	2·74
National Revenue (including income tax)	1·15	1·29	1·48	1·66	1·84
Pensions, war, military and civil	3·54	3·36 [4]	3·26 [4]	[5]	[5]
Pensions and National Health	1·21	1·19	1·32	[2,5]	[2,5]
Post Office	3·56	3·79	4·05	4·51	4·69
Public Works	1·02	1·02	1·03	1·09	1·32
Royal Canadian Mounted Police	0·48	0·53	0·56	0·59	0·59
Trade and Commerce	0·75	0·60	0·59	0·55	0·60

For footnotes, see end of table, p. 962.

12.—Per Capita Revenues and Expenditures, by Principal Items, Years Ended Mar. 31, 1942-46—concluded

Item	1942	1943	1944	1945	1946
	EXPENDITURES—concluded				
Ordinary Expenditures—concluded	$	$	$	$	$
Transport—					
Air service	0·29	0·28	0·30	0·33	0·34
Marine	0·34	0·36	0·38	0·40	0·40
Railways and Canals (including Maritime Freight Rates Act and Railway Grade Crossing Fund)	0·66	0·70	0·77	0·74	0·71
Veterans Affairs	–	–	–	6·69	5·92
Totals, Ordinary Expenditures [6]	**38·17**	**47·52**	**52·64**	**63·32**	**86·28**
Totals, Capital Expenditures	**0·29**	**0·28**	**0·22**	**0·26**	**0·37**
Totals, Special Expenditures	**5·49**	**2·65**	**3·13**	**0·62**	**1·41**
War and Demobilization Expenditures	**114·95**	**315·29**	**383·05**	**364·59**	**325·26**
Government-Owned Enterprises	**0·10**	**0·10**	**0·11**	**0·11**	**0·11**
Other Expenditures	**2·75**	**5·57**	**5·30**	**3·94**	**3·91**
Grand Totals, Expenditures	**161·75**	**371·41**	**444·45**	**432·84**	**417·34**

[1] Includes pensions to blind persons. [2] Included under National Health and Welfare. [3] Included under Department of Finance. [4] Excludes civil pensions. [5] Included under Veterans Affairs. [6] Includes items not specified.

Subsection 3.—Analysis of Revenues from Taxation

Table **13** gives a picture of the proportions of total expenditures that have been met by taxation and from all sources of revenue for each of the fiscal years ended Mar. 31, since 1936. Prior to the War of 1939-45, and as Canada was pulling away from the depression of the early 1930's, the record showed a substantial improvement and in 1938, 96·7 p.c. of all expenditures was being met from all revenue and almost 84 p.c. from taxation revenue. Subsequently, as was to be expected, the reverse was the case. The high level of the percentage figures for 1942 was the result of the early imposition of high taxation levels and the fact that at this time war expenditures were still relatively low.

13.—Total Expenditures and the Percentages Thereof Raised by Taxation and All Revenue, Years Ended Mar. 31, 1936-46

Year	Total Expenditures	Taxation Revenue	Total Revenue	Percentages of Total Expenditures Provided from—	
				Taxation	All Revenue
	$	$	$	p.c.	p.c.
1936	532,585,555	317,311,809	372,595,996	59·58	69·96
1937	532,005,432	386,550,869	454,153,747	72·66	85·36
1938	534,408,118	448,651,061	516,692,749	83·95	96·68
1939	553,063,098	435,706,794	502,171,354	78·78	90·80
1940	680,793,792	467,684,963	562,093,459	68·70	82·56
1941	1,249,601,446	778,175,450	872,169,645	62·28	69·80
1942	1,885,066,056	1,360,912,837	1,488,536,342	72·19	78·96
1943	4,387,124,117	2,066,719,961	2,249,496,177	47·11	51·27
1944	5,322,253,505	2,436,811,484	2,765,017,713	45·78	51·95
1945	5,245,611,924	2,154,626,648	2,687,334,799	41·08	51·23
1946	5,136,228,506	2,202,358,387	3,013,185,074	42·88	58·67

As shown in Table 8, the revenues from customs and excise duties, the two most important sources prior to the War of 1914-18, amounted in 1946, to only 14 p.c. of the revenue derived from taxation and revenue from income tax formed 42 p.c. of the tax revenue.

The following analyses of taxation revenues are confined to excise duties, excise taxes and income tax revenue; customs receipts constitute a single item in the "Public Accounts" and cannot be further analysed here.

Excise Duties

Excise duties proper are presented here together with a summary of the excise tariff and statistics arising as a by-product of administration, such as the quantities of grain and other products used in distillation and the quantities of excisable goods taken out of bond.

Canadian Excise Tariff.—The following is a statement of the Canadian excise tariff, as existing at Apr. 1, 1946—

1. Spirits distilled in Canada, per proof gal...	$11·00
Canadian brandy, per proof gal...........	$ 9·00
Except Spirits as follows:—	
(a) Used in a bonded manufactory for medicines, extracts, etc., per proof gal..................................	$ 1·50
(b) Used in a bonded manufactory for perfumes, per proof gal..............	$ 1·50
(c) Used in a bonded manufactory for vinegar, per proof gal..................	$ 0·60
(d) Used for chemical compositions approved by Governor in Council, per proof gal............................	$ 0·15
(e) Sold to licensed druggists for pharmaceutical preparations, per proof gal..................................	$ 1·50
(f) Distilled from native fruits and used by a licensed wine manufacturer for fortification of native wines, per proof gal............................	$ 1·50
2. Spirits imported (in addition to any of the duties otherwise imposed), per proof gal...............................	$ 0·30
3. Beer or Malt Liquor:—	
Brewed in whole or part from any substance other than malt, per gal......	$ 0·45
4. Malt:—	
(a) Produced in Canada and screened, per lb..............................	$ 0·16
(b) Imported, per lb....................	$ 0·16
5. Malt Syrup:—	
(a) Produced in Canada, per lb.........	$ 0·24
(b) Imported, per lb....................	$ 0·40
6. Tobacco, Cigars and Cigarettes:—	
(a) Manufactured tobacco, per lb.......	$ 0·35
(b) Cigarettes weighing not more than 2½ lb. per M, per M.................	$ 6·00
(c) Cigarettes, weighing more than 2½ lb. per M, per M...................	$11·00
(d) Cigars, per M......................	$ 3·00
(e) Canadian raw leaf tobacco, when sold for consumption, per lb........	$ 0·20

A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities to universities, scientific or research laboratories, or to any bona fide public hospital for medicinal purposes only.

Revenues from Excise Duties.—In the year ended Mar. 31, 1946, tobacco, including cigarettes, supplied about 50 p.c. of the revenue from excise duties.

14.—Gross Excise Duties Collected, Years Ended Mar. 31, 1941-46

(As shown in the Report of the Commissioner of Excise)

Item	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$
Spirits	17,695,951	21,994,307	31,612,277	30,908,236	31,576,777	47,766,499
Validation fee	664,778	416,576	513,027	441,258	633,523	1,042,625
Beer or malt liquor	324,004	414,018	579,859	371,956	7,102,636	6,646,438
Malt syrup	108,681	102,730	72,762	222,250	244,266	177,152
Malt	16,801,740	25,241,291	33,952,236	35,080,381	35,121,290	41,382,052
Tobacco (incl. cigarettes)	54,893,927	64,452,468	75,757,280	79,315,378	82,538,590	97,595,346
Cigars	522,875	597,488	614,444	590,310	603,483	632,743
Licences	45,137	39,336	38,270	36,626	36,705	38,692
Totals[1]	**91,057,093**	**113,258,214**	**143,140,155**	**146,966,395**	**157,857,270**	**195,281,547**

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[1] These totals do not agree with net excise duties as shown in Table **6**, due to refunds, drawbacks and, in the case of spirits, a transfer tax being included here.

Statistics of Licences and Distillation.—As a by-product of the collection of excise duties, statistics are compiled of excise licences issued and of distillation.

15.—Statistics of Licences and Distillation, Years Ended Mar. 31, 1941-46

Item	1941	1942	1943	1944	1945	1946
Licences issued.........No.	20	19	20	21	22	22
Licence fees............. $	5,000	4,500	5,125	5,250	6,375	5,500
Duty Collected Ex-manufactory on Deficiencies and Assessment—						
Amount.......proof gal.	140	Nil	Nil	Nil	Nil	Nil
Duty................ $	981	“	“	“	“	“
Totals, Duties Collected Plus Licence Fees..... $	5,981	4,500	5,125	5,250	6,375	5,500
Grain, etc., Used for Distillation—						
Malt................. lb.	16,863,074	17,808,827	30,488,625	45,876,662	65,174,752	62,436,322
Indian corn........... “	99,439,503	77,894,730	59,003,261	7,172,323	39,946,582	26,710,786
Rye................... “	23,143,976	30,103,297	18,227,483	6,555,429	31,737,221	30,605,412
Other grain[1].......... “	1,608,357	13,836,906	180,352,641	396,967,171	455,098,683	429,448,845
Totals, Grain Used... “	141,054,910	139,643,760	288,072,010	456,571,585	591,957,238	549,201,365
Molasses used........... lb.	116,730,154	136,970,515	48,478,178	187,164	66,744	9,429,064
Wine and other materials “	2,695,501	366,290	13,015,476	1,301,748	4,358,519	3,924,329
Sulphide liquor.........gal.	Nil	Nil	Nil	48,172,196	74,593,045	73,557,030
Proof spirits manufactured........... proof gal.	14,641,842	17,569,476	19,657,698	27,203,337	35,555,059	34,625,339

[1] Break down of this figure not available.

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from the low of 2,356,329 proof gal. in that year to the high of 35,555,059 proof gal. recorded in 1945.

Alcohol and Tobacco Taken Out of Bond.—Record amounts of spirits, malt liquor, malt, cigars and cigarettes were taken out of bond for consumption in 1946, while the amount of tobacco was higher than in 1945 but below the years 1941-44.

16.—Spirits, Malt Liquor, Malt and Tobacco Taken Out of Bond for Consumption, Years Ended Mar. 31, 1930-46

Note.—For years prior to 1900, see 1916-17 Year Book, p. 528; for 1901-10, see 1933 Year Book, p. 840; for 1911-21, the 1938 Year Book, p. 855; and 1922-29, the 1945 edition, p. 936.

Year	Spirits	Malt Liquor	Malt	Cigars	Cigarettes	Tobacco[1]
	gal.	gal.	lb.	No.	No.	lb.
1930............	1,926,063	62,992,156	149,746,711	196,251,957	5,035,878,655	22,195,455
1931............	1,180,536	58,641,404	137,997,652	177,841,987	5,082,314,590	22,520,345
1932............	781,612	52,001,768	121,257,234	152,159,301	4,401,628,765	22,801,035
1933............	769,527	40,632,084	95,604,954	122,664,715	3,728,832,089	22,815,839
1934............	933,946	40,105,883	92,319,768	115,988,080	4,342,728,835	22,315,295
1935............	1,063,928	51,703,781	117,985,480	125,519,841	4,958,250,855	22,891,129
1936............	1,621,286	56,913,069	128,204,424	124,570,870	5,310,132,016	23,113,501
1937............	1,900,714	59,920,298	134,154,965	123,956,872	5,855,935,609	24,122,763
1938............	2,302,210	67,019,336	147,568,751	136,275,443	6,848,693,442	25,155,143
1939............	2,299,474	63,069,959	136,284,405	127,756,146	6,912,920,315	25,929,546
1940............	2,032,987	65,912,495	143,056,382	139,698,605	7,301,419,960	28,403,208
1941............	2,371,633	78,731,132	168,025,398	173,484,743	7,776,291,482	31,254,234
1942............	2,944,391	94,992,330	213,199,222	198,595,682	9,018,272,219	31,626,932
1943............	3,445,872	103,291,141	228,029,691	204,699,110	10,803,185,549	31,510,083
1944............	2,620,297	97,192,032	219,242,999	196,407,845	11,405,842,655	32,264,175
1945............	2,676,482	116,009,457	219,529,938	200,879,906	11,982,675,329	30,876,112
1946............	4,087,690	134,579,706	259,083,043	210,694,900	14,512,351,682	31,048,195

[1] Figures include snuff.

Excise Taxes

The statistics given in Table **17** represent gross collections by the Excise Division of the Department of National Revenue; they differ from the figures shown in Table **8** (in the column "Sales and Other Excise Taxes"), which represent net revenues received, by the amounts of the refunds shown in footnote 3 to Table **17**.

17.—Excise War Taxes Collected, by Commodities and Provinces, Years Ended Mar. 31, 1941-46

(Accrued Revenue)

NOTE.—Dashes in this table indicate that there was no tax imposed on the corresponding item in the years so indicated.

Commodity or Province	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$
Domestic—						
Amusements	–	8,792,169	12,065,716	13,701,496	14,188,083	15,575,309
Automobiles	10,286,147	16,045,994	2,924,340	5,921,754	6,294,009	6,296,296
Beverages	–	6,246,618	14,117,819	19,057,382	19,437,772	16,653,926
Candy and chewing gum	–	–	8,183,680	12,602,157	12,859,816	11,416,787
Carbonic acid gas	304,402	292,572	198,231	241,647	255,469	284,872
Cigarette papers and tubes	1,313,173	3,689,840	3,531,201	1,963,258	4,901,009	4,284,457
Cigars, cigarettes and tobacco	240,038	329,310	26,286,288[1]	54,673,051	62,246,563	70,128,642
Electrical and gas apparatus	–	8,079,958	4,995,015	2,860,270	3,604,480	1,207,069
Embossed cheques (Departmental)	270,054	339,881	364,869	346,042	324,670	341,590
Furs	–	–	3,129,701	4,146,248	4,902,513	4,509,286
Gasoline	–	23,803,222	24,336,052	24,760,040	29,523,926	29,482,040
Licences	51,315	72,185	64,986	66,172	71,398	79,841
Lighters	88,395	154,074	162,900	63,380	123,814	285,060
Matches	1,940,178	2,554,602	2,661,665	2,767,790	2,968,664	3,291,926
Other manufactures tax	2,847,338	171,462	3,059,897	9,188,358	10,797,247	13,107,424
Phonographs, radios and tubes	–	2,337,772	1,150,821	408,285	975,035	596,968
Playing cards	250,049	372,337	563,829	627,100	640,785	729,000
Sales, domestic	156,749,423	214,948,427	224,289,399	302,755,414	372,428,104	296,610,969
Stamps	4,304,349	4,552,989	12,209,804[2]	12,652,793	12,642,984	14,472,033
Sugar	11,546,715	21,402,383	14,571,572	12,769,384	11,557,494	9,672,143
Toilet preparations	1,443,653	3,454,910	4,484,050	5,295,317	6,188,703	6,820,578
Transportation and transmission	1,848,158	8,131,330	16,083,059	22,379,096	24,205,479	26,893,391
Wines	658,033	1,444,916	2,006,816	1,710,217	1,772,375	2,066,109
Penalties and interest	119,575	129,187	189,727	264,524	297,323	221,904
Totals, Domestic	194,260,995	327,346,138	381,631,437	511,221,175	603,207,715	535,027,620
Importations—						
Sales	27,786,710	31,604,839	26,189,039	36,500,217	31,680,400	29,641,830
Excise	4,014,219	3,109,055	3,406,789	5,819,572	4,186,627	4,260,189
Special excise 3 p.c.	1,007,988	860,812	480,381	507,635	544,729	787,464
War exchange tax	61,932,028	100,873,982	94,553,780	118,912,840	98,164,427	41,198,213
Grand Totals	**289,001,940**[3]	**463,794,826**[3]	**506,261,426**[3]	**672,961,439**[3]	**737,783,898**[3]	**610,915,316**[3]
Prince Edward Island	154,255	212,425	339,638	513,280	432,082	450,411
Nova Scotia	5,943,809	9,086,603	10,701,947	14,057,972	13,546,842	9,498,914
New Brunswick	4,765,012	8,238,695	7,506,656	10,632,423	10,653,358	8,230,070
Quebec	86,303,018	133,929,154	179,651,152	259,893,903	293,206,071	240,290,038
Ontario	161,514,970	260,244,795	251,494,398	319,213,251	352,331,247	292,357,960
Manitoba	8,093,605	13,046,036	14,759,663	17,277,555	18,199,488	17,703,441
Saskatchewan	2,432,145	3,689,087	4,507,622	5,741,723	6,099,620	5,826,579
Alberta	5,166,848	10,015,676	10,919,172	11,965,263	12,548,696	11,712,080
British Columbia	14,156,759	24,685,120	25,698,955	32,962,343	30,036,809	24,210,187
Yukon	75,701	130,241	130,361	171,533	185,383	120,262
Departmental sales	271,724	343,890	366,036	346,513	324,732	344,925
Miscellaneous	11	–	470	4,377	4,833	3,815
British post office parcels	978	282	85	70	73	191
Departmental War Exchange Tax	123,105	172,822	185,271	181,233	214,664	166,443

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[1] New tax imposed on cigarettes and tobacco. [2] Increase due largely to use of excise stamps in paying taxes on places of entertainment. [3] Includes refunds of $4,834,909 in 1941, $10,369,721 in 1942, $17,549,001 in 1943, $34,342,147 in 1944, $194,718,627 in 1945 and $114,005,355 in 1946.

Income Tax

The income tax revenue shown in Table **18** represents collections made by the Taxation Division of the Department of National Revenue under the authority of the Income War Tax Act (c. 97, R.S.C. 1927). The Act covers more than income tax proper, as corporation taxes are coming to be regarded in a different light to those on the income of individuals. Income tax on individuals and on corporations is treated separately in Part III of this Chapter, at pp. 998-1005.

The tax on dividends and interest (Sect. 9B of the Act) is levied at the rate of 5 p.c. on interest paid by Canadian debtors (except provinces and municipal or public bodies) in a currency which is at a premium in excess of 5 p.c. over Canadian funds and at the rate of 15 p.c. on dividends received by persons who are non-residents of Canada and on interest received from or credited by Canadian debtors to non-residents, except in the case of Dominion or Dominion-guaranteed bonds, and also on interest received by a non-resident parent company from a Canadian subsidiary, except where an agreement had been entered into prior to Apr. 1, 1933, for the payment of such interest in a currency other than Canadian. The tax also includes fees for copyrights and rights for the use of films, phonograph records and similar devices. The tax on rents and royalties (Sect. 27) is imposed at the rate of 15 p.c. on non-residents in respect of the gross amount of all rents, royalties, etc., for the use in Canada of real or personal property, patents or for anything used or sold in Canada. The gift tax (Sect. 88) is imposed at the rate of 10 p.c. on gifts up to $5,000 and at rates varying from 11 p.c. to 28 p.c. on gifts from $5,000 to $1,000,000 or over.

18.—Collections Under the Income War Tax Act, Years Ended Mar. 31, 1919-47

(Tax and Applicable Section of the Act)

Year	General Income Tax		Tax on Dividends and Interest Sect. 9B	Tax on Rents and Royalties Sect. 27	Gift Tax Sect. 88	Total[1]
	Individuals Sect. 9-1	Corporations Sect. 9-2				
	$	$	$	$	$	$
1919	7,972,890	1,376,830	–	–	–	9,349,720
1920	13,195,314	7,068,426	–	–	–	20,263,740
1921	32,532,526	13,849,298	–	–	–	46,381,824
1922	39,820,597	38,863,758	–	–	–	78,684,355
1923	31,689,393	28,022,145	–	–	–	59,711,538
1924	25,657,335	28,546,693	–	–	–	54,204,028
1925	25,156,768	31,091,275	–	–	–	56,248,043
1926	23,849,475	31,722,487	–	–	–	55,571,962
1927	18,043,261	29,343,048	–	–	–	47,386,309
1928	23,222,891	33,348,156	–	–	–	56,571,047
1929	24,793,449	34,628,874	–	–	–	59,422,323
1930	27,237,502	41,783,224	–	–	–	69,020,726
1931	26,624,181	44,423,841	–	–	–	71,048,022
1932	24,772,846	36,481,554	–	–	–	61,254,400
1933	25,959,466	36,107,231	–	–	–	62,066,697
1934	29,183,715	27,385,822	4,829,635	–	–	61,399,172
1935	25,201,392	35,790,239	5,816,435	–	–	66,808,066
1936	32,788,746	42,518,971	7,207,601	–	194,485	82,709,803
1937	35,358,302	58,012,843	8,910,014	–	84,083	102,365,242
1938	40,070,942	69,768,605	10,152,088	–	373,897	120,365,532
1939	46,591,449	85,185,887	9,903,046	–	345,756	142,026,138
1940	45,008,858	77,920,002	11,121,632	–	398,074	134,448,566
1941	75,636,231	131,565,710	12,282,259	759,957	226,847	248,143,022[2]
1942	189,237,538	185,835,699	26,642,106	1,626,669	264,258	510,243,017[3]
1943	533,915,059	347,969,723	26,710,946	1,369,851	223,093	910,188,672
1944	809,570,762	311,378,714	25,670,804	1,272,389	1,546,633	1,151,757,035[4]
1945	763,896,322	276,403,849	27,052,692	1,546,445	532,599	1,072,758,068[5]
1946	689,506,763	217,833,540	26,823,894	1,485,725	770,369	937,729,273[6]
1947	691,989,231	196,819,253	28,428,143	1,708,003	1,538,888	963,458,245[7]

[1] These figures include the estimated refundable portion and therefore do not agree with the totals given in Table **17**.

[2] Includes national defence tax amounting to $27,672,018.

[3] Includes national defence tax amounting to $106,636,747.

[4] Includes 1942 deferred tax amounting to $2,317,733.

[5] Includes 1942 deferred tax amounting to $3,326,161.

[6] Includes 1942 deferred tax amounting to $1,308,982.

[7] Includes 1942 deferred tax amounting to $1,002,027 and tax on private companies amounting to $41,972,700.

Subsection 4.—Subsidies and Loans to Provinces

Subsidies.—By the provisions of the British North America Act and subsequent arrangements entered into from time to time, the Federal Government makes certain annual payments to the provinces: these are summarized as follows.

Interest on Debt Allowances.—By the terms of the union of the provinces at Confederation in 1867, the Federal Government assumed all the outstanding debts and liabilities of the provinces and undertook to pay, except in the case of Ontario and Quebec, interest at 5 p.c. on the amounts by which the actual per capita indebtedness of the provinces fell short of a basic debt allowance calculated at approximately $25 per capita. On the subsequent entry of additional provinces into Confederation, similar arrangements were effected regarding the assumption of their pre-Confederation indebtedness. From time to time, adjustments have been made in the basis of calculating the debt allowances of provinces; moreover, the Federal Government pays interest at 5 p.c. per annum on the amounts by which the actual debts of the provinces, on their entry into Confederation, fell short of the allowed debts as adjusted. The aggregate annual payment by the Federal Government to the provinces in respect of interest on debt allowances is $1,609,386.

Allowances for Governments and Legislatures.—Under the terms of the union, annual specific grants were made to the various provinces for the support of their governments and legislatures. These fixed amounts vary with the population of the provinces, according to the following scale, approved in 1907:—

Where population is—	$
Under 150,000	100,000
150,000, but does not exceed 200,000	150,000
200,000, " " 400,000	180,000
400,000, " " 800,000	190,000
800,000, " " 1,500,000	220,000
Over 1,500,000	240,000

Aggregate annual allowances presently paid under this head amount to $1,750,000.

Allowances per Head of Population.—Under the British North America Act of 1867, a grant of 80 cents per head of population was allowed to each province. The British North America Act of 1907 provided that the grant would be paid to each province at the rate of 80 cents per head up to a population of 2,500,000, and at the rate of 60 cents per head for so much of the population as exceeded that number. Such allowances paid to the provinces in the year ended Mar. 31, 1946, amounted to $8,779,089.

Special Grants.—In the case of certain of the provinces, grants have been added to the original scale of subsidies in view of special circumstances obtaining, which, for the year ended Mar. 31, 1946, amounted in the aggregate to $2,280,880 as set forth below:—

Prince Edward Island.—A special grant of $195,000 less a deduction of $39,120 (net grant of $155,880).

New Brunswick.—An annual grant of $150,000 since 1875 in consideration of the repeal of lumber duties reserved to the Province by the B.N.A. Act of 1867.

Manitoba.—A special grant on the basis of population amounting at present to $562,500 per annum.

Saskatchewan and Alberta.—An annual sum as compensation for loss of public lands revenue, based on their respective populations and amounting at present to $750,000 for Saskatchewan and $562,500 for Alberta.

British Columbia.—A special grant amounting at present to $100,000 per annum.

19.—Subsidy Allowances to Provincial Governments, Years Ended Mar. 31, 1941-46

Province	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$
Prince Edward Island[1]	381,932	381,932	381,932	381,932	381,932	381,932
Nova Scotia[1]	653,048	701,323	708,958	705,140	705,140	705,140
New Brunswick[1]	693,040	729,167	735,605	732,386	732,386	732,386
Quebec	2,592,014	2,859,245	2,873,935	2,866,590	2,866,590	2,866,590
Ontario	2,941,424	3,136,394	3,173,621	3,155,007	3,155,007	3,155,007
Manitoba[1]	1,713,284	1,713,284	1,722,475	1,717,879	1,716,987	1,717,284
Saskatchewan[1]	2,132,175	2,132,175	2,052,162	2,092,169	2,028,578	2,049,775
Alberta	1,787,475	1,788,589	1,801,031	1,794,810	1,855,207	1,835,075
British Columbia[1]	874,561	966,513	1,040,366	1,003,440	1,003,440	1,003,440
Totals	**13,768,953**	**14,408,622**	**14,490,085**	**14,449,353**	**14,445,267**	**14,446,629**

[1] Received also "Additional Special Grants", 1940-41, not included in this table (see text following Table 20).

20.—Subsidy Allowances to Provincial Governments, July 1, 1867 to Mar. 31, 1946

Province	Allowances for Government	Allowances on Basis of Population	Special Grants[1]	Interest on Debt Allowances[2]	Total[3]
	$	$	$	$	$
Prince Edward Island	7,511,667	19,502,745	21,843,750	16,620,375	65,478,537
Nova Scotia	8,560,000	19,336,684	8,500,000	2,196,113	38,592,797
New Brunswick	9,015,000	23,701,305	26,644,233	17,929,630	77,290,168
Quebec	9,170,000	21,893,706	11,580,000	1,715,215	44,358,921
Ontario	9,810,000	28,495,795	826,980	3,815,959	42,948,734
Manitoba	12,560,000	133,855,021	–	6,595,078	153,010,099
Saskatchewan	4,920,000	6,272,590	6,534,863	3,029,531	20,756,984
Alberta	12,160,000	110,499,050	–	6,726,320	129,385,370
British Columbia	8,136,667	24,074,584	26,031,250	16,620,375	74,862,876
Totals	**81,843,334**	**387,631,480**	**101,961,076**	**75,248,596**	**646,684,486**

[1] See text at p. 967. [2] Allowances in lieu of debt. [3] Does not include "Additional Special Grants" (see text following).

Additional Special Grants.—In addition to the above, there were other special grants paid to the Maritime Provinces, Manitoba, Saskatchewan and British Columbia up to 1941 that were voted annually, aggregating, in the year ended Mar. 31, 1941, $5,475,000 as follows:—

	$
Prince Edward Island	275,000
Nova Scotia	1,300,000
New Brunswick	900,000
Manitoba	750,000
Saskatchewan	1,500,000
British Columbia	750,000

These additional special grants were suspended with the coming into force of the Dominion-Provincial Taxation Agreements. Rent will be paid in 1947 and later years in the case of the three Maritime Provinces under the provisions of the Maritime Additional Subsidies Act, 1942.

Dominion-Provincial Taxation Agreements.—The Dominion-Provincial Tax Rental Agreements Act, 1947, authorized the Federal Government to enter into Agreements with the Provinces by which, in return for compensation, the Provincial Governments would agree to refrain from levying certain direct taxes for a period of five years. These Agreements are successors to the Wartime Agreements which have lapsed (see pp. 900-901 of the 1946 Year Book). Seven provinces, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta, and British Columbia had made new agreements with the Dominion up to September, 1947.

The main purposes of these Agreements are to establish a more equitable system of taxation throughout Canada by reducing duplication of direct taxation and duplication of machinery for the collection of direct taxes, to give a greater measure of stability to the revenues of the Provinces, and to enable the Federal Government, along with the Provincial Governments, to carry out national policies intended to maintain high levels of employment and production.

The Agreements continue the basic provisions of the Wartime Taxation Agreements, under which the Provinces and their municipalities withdrew their income taxes, corporation income taxes and corporation taxes in return for compensation from the Federal Government, (pp. 900-901 of the 1946 Year Book). There are, however, some additional provisions in the new Agreements which have resulted from the negotiations carried on between the governments in 1945 and 1946 at the Dominion-Provincial Conference meetings and since the Budget offer of June, 1946. The main features of this offer which have been embodied in the Agreements are outlined at pp. 883-884 of the 1946 Year Book.

The Provinces are required, under the Agreement, to refrain from levying certain direct taxes, with the exception that they are permitted to impose a corporation income tax of 5 p.c. on the income of corporations attributable to their operations in the particular Province. The revenue from this tax is to go to the individual Province with a corresponding reduction in the amount of compensation paid to that Province. The purpose of this provision is to assure as nearly as possible a uniform level of corporation income tax throughout Canada as between the agreeing and non-agreeing Provinces. Under the Agreement it is provided, however, that a deduction will be made from the payment to the Province corresponding to the amount of revenue that such a tax would have yielded even if the Province does not impose the tax. The Agreement contains a set of rules by which the income of corporations is allocated to the various Provinces in which they carry on business and further provides that this tax must be imposed under the same general provisions as are in the Income War Tax Act, and that it will be administered on behalf of the Provinces by the Dominion and at the expense of the Dominion.

Another provision concerns succession duties, a field not included in the Wartime Taxation Agreements. The Provinces are now given the alternative of withdrawing from this field or remaining in it. If they withdraw, they receive the full amount of compensation otherwise payable under the Agreement, (in the determination of which succession duties revenue was taken into account) but if they remain, their payment is reduced by the amount of revenue loss which the Dominion suffers, through the credit which is allowed against the Dominion duty for provincial duties on the same succession. All seven of the Provinces which have negotiated Agreements with the Dominion have taken the first alternative and withdrawn from the succession duties field.*

The Agreement does not prevent the imposition of royalties and rentals on natural resources by a Province since such royalties and rentals are not regarded as taxes when they are of a nature conforming with the definitions set forth in the Agreement. The imposition of taxes on income derived from logging and mining operations, as defined in the Agreement is allowed without any deduction from the payment to the Province.

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* See Succession Duties pp. 1006-1013.

The significant differences between the 1946 Budget offer and the present Agreements are as follows:—

(1) The Provinces may choose between two methods of determining the amount of their guaranteed minimum annual payments (see below).

(2) The total guaranteed minimum annual payments to the Provinces under these new methods are increased by $25,100,000 to $206,500,000.

(3) These new guaranteed minimum annual payments are used as the bases for calculating the annual payments which are adjusted for increases in provincial population and gross national production per capita.

(4) In the year following the termination of the Agreement, provincial taxpayers are to be allowed by the Federal Government tax credits of a maximum of 5 p.c. of the Dominion income tax, 50 p.c. of Dominion succession duties, and one-seventh of Dominion corporation income tax for taxes imposed by their Provincial Governments.

The guaranteed minimum annual payments are now computed in one of two ways. Under the first option a Province may elect as a base $12·75 per capita of its 1942 population plus 50 p.c. of its income tax and corporation tax revenue in 1940, plus statutory subsidies payable in 1947; under the second it may choose $15 per capita of its 1942 population plus statutory subsidies payable in 1947. A special arrangement was made for Prince Edward Island which is to receive a guaranteed minimum payment of $2,100,000. This is slightly in excess of the amount determined by either of the two formulas. The guaranteed minimum annual payments to the Provinces under the most favourable option and the preliminary estimated 1947 payments are shown in Table **21.**

The actual amount payable in any one year is calculated according to the following method. The minimum payment is adjusted for changes in provincial population and gross national product per capita, as compared with the base year 1942, for each of the three calendar years immediately preceding the fiscal year of payment. These three amounts are then averaged, and the resultant is the amount payable. If, in any of the three calendar years concerned, the amount calculated is less than the amount of the minimum payment, then the amount of the minimum payment is substituted. This method of computing the annual payments ensures that the revenues of the Province will increase as the provincial population and gross national product per capita increase, and at the same time guarantees that the Province will at no time in the period covered by the Agreement receive less than the stated minimum.

21.—Guaranteed Minimum Annual Payments to Provinces[1] under Most Favourable Option and Preliminary Estimated 1947 Payments

Province and Option	Guaranteed Minimum Annual Payments	Preliminary Estimated 1947 Payments
	$'000	$'000
Prince Edward Island	2,100	2,300
Nova Scotia (Second)	10,870	12,100
New Brunswick (First)	8,773	9,500
Manitoba (First)	13,540	14,400
Saskatchewan (Second)	15,291	15,800
Alberta (First)	14,228	15,300
British Columbia (First)	18,120	21,400
Totals	**82,922**	**90,800**

[1] The Governments of Quebec and Ontario have not made agreements with the Federal Government. The payments for these Provinces under the first option would be: Quebec, $56,382,000 and $63,300,000; Ontario, $67,158,000 and $74,400,000.

Under an offer ancillary to the Agreement, but which applies to all Provinces, whether agreeing or not, the Dominion will pay to the Province one-half of the Dominion corporation income tax on income of corporations derived from generating and/or distributing to the public electrical energy, gas or steam, where this is the main business of the corporation.

Loans to Provinces.—All of the provincial loans recently advanced by the Dominion have been made to the western provinces under the authority of relief legislation beginning with the Unemployment and Farm Relief Act, 1931, and these have been secured by interest-bearing treasury bills of the respective provinces, the rate being 3 p.c. since July 1, 1936. The sum total of such loans outstanding as at Mar. 31, 1946, was $175,941,005 less write-offs of $19,861,035, making net loans outstanding $156,079,970, divided by provinces as follows: Alberta $25,869,500; British Columbia $34,369,760; Manitoba $24,759,924; Saskatchewan $71,080,786. Details are given in Table 19, p. 830 of the 1943-44 Year Book.

Subsection 5.—National Debt

The gross national debt of Canada on Mar. 31, 1914, was $544,391,369, as against assets of $208,394,519, leaving a net debt of $335,996,850. This was a comparatively small debt; it was incurred almost altogether either for public works of general utility which, like the Intercolonial and transcontinental railways and the canal system, remained assets, though perhaps not realizable assets, of the nation, or was expanded as subsidies to enterprises which, like the Canadian Pacific Railway, though not government-owned, assisted greatly in extending the area of settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, it was a debt incurred for productive purposes. Also, it was mainly held outside the country, the principal of the Dominion funded debt payable in London, England, being $302,842,485 on Mar. 31, 1914, as against only $717,453 payable in Canada.

From 1914 to 1920, the gross debt increased by almost $1,200,000,000 to a total of $3,042,000,000 due to heavy war and post-war expenditures, and while there was a slight reduction to a low point of $2,544,586,411 at Mar. 31, 1930, additional expenditures during the depression years resulted in a gross debt of $3,710,610,593 by Mar. 31, 1939.

From 1939 to 1946 there was an increase of $15,249,235,590, incurred mainly for war purposes, bringing the total gross debt to $18,959,846,183 at the end of March, 1946. After deduction of active assets held by the Government, the net debt showed an increase of $10,268,846,095 during the war years, amounting to $13,421,405,409 at the end of March, 1946.

The portion of the funded debt payable in foreign currencies decreased steadily and sharply during the war years, as was inevitable under conditions where almost the entire amount of Canada's war financing was carried out through domestic operations. Of the total funded debt and treasury bills outstanding as at Mar. 31, 1946, amounting to $16,807,177,765, less than 1·2 p.c. was payable outside of Canada, representing $11,843,831 payable in London and $178,000,000 in New York.

22.—Summary of the Public Debt of Canada and Interest Payments Thereon, Years Ended Mar. 31, 1914-46

NOTE.—Statistics for the years 1867-99 are given at pp. 775-776 of the 1942 Year Book; those for 1900-13, at p. 944 of the 1945 edition.

Year	Gross Debt	Active Assets	Net Debt	Net Debt Per Capita[1]	Increase or Decrease of Net Debt During Year	Interest Paid on Debt	Interest Received from Active Assets	Interest Paid Per Capita[1]
	$	$	$	$	$	$	$	$
1914...	544,391,369	208,394,519[2]	335,996,850	42·64	21,695,225	12,893,505	1,964,541	1·64
1915...	700,473,814	251,097,731[2]	449,376,083	56·31	113,379,233	15,736,743	2,980,247	1·97
1916...	936,987,802	321,831,631[2]	615,156,171	76·88	165,780,088	21,421,585	3,358,210	2·68
1917...	1,382,003,268	502,816,970[2]	879,186,298	109·08	264,030,127	35,802,567	3,094,012	4·44
1918...	1,863,335,899	671,451,836[2]	1,191,884,063	146·28	312,697,765	47,845,585	4,466,724	5·87
1919...	2,676,635,725	1,102,104,692[2]	1,574,531,033	189·45	382,646,970	77,431,432	7,421,002	9·32
1920...	3,041,529,587	792,660,963	2,248,868,624	262·84	674,337,591	107,527,089	17,086,981	12·57
1921...	2,902,482,117	561,603,133	2,340,878,984	266·37	92,010,360	139,551,520	24,815,246	15·88
1922...	2,902,347,137	480,211,335	2,422,135,802	271·57	81,256,817	135,247,849	21,961,513	15·16
1923...	2,888,827,237	435,050,368	2,453,776,869	272·34	31,641,067	137,892,735	16,465,303	15·30
1924...	2,819,610,470	401,827,195	2,417,783,275	264·44	−35,993,594	136,237,872	11,916,479	14·90
1925...	2,818,066,523	400,628,837	2,417,437,686	260·11	−345,589	134,789,604	11,332,328	14·50
1926...	2,768,779,184	379,048,085	2,389,731,099	252·85	−27,706,587	130,691,493	8,535,086	13·83
1927...	2,726,298,717	378,464,347	2,347,834,370	243·65	−41,896,729	129,675,367	8,559,401	13·46
1928...	2,677,137,243	380,287,010	2,296,850,233	233·54	−50,984,137	128,902,945	10,937,822	13·11
1929...	2,647,033,973	421,529,268	2,225,504,705	221·91	−71,345,528	124,989,950	12,227,562	12·46
1930...	2,544,586,411	366,822,452	2,177,763,959	213·34	−47,740,746	121,566,213	13,518,205	11·91
1931...	2,610,265,698	348,653,762	2,261,611,937	217·97	83,847,978	121,289,844	10,421,224	11·69
1932...	2,831,743,563	455,897,390	2,375,846,172	226·06	114,234,236	121,151,106	9,330,125	11·53
1933...	2,996,366,665	399,885,839	2,596,480,826	244·19	220,634,654	134,999,069	11,220,989	12·70
1934...	3,141,042,097	411,063,957	2,729,978,141	254·16	133,497,314	139,725,417	11,148,231	13·01
1935...	3,205,956,369	359,845,411	2,846,110,958	262·44	116,132,817	138,533,202	10,963,478	12·77
1936...	3,431,944,027	425,843,510	3,006,100,517	274·53	159,989,559	134,549,169	10,614,125	12·29
1937...	3,542,521,139	458,568,937	3,083,952,202	279·22	77,851,685	137,410,345	11,231,035	12·44
1938...	3,540,237,614	438,570,044	3,101,667,570	278·13	17,715,368	132,117,422	13,120,523	11·85
1939...	3,710,610,593	558,051,279	3,152,559,314	279·80	50,891,744	127,995,617	13,163,015	11·36
1940...	4,028,728,606	757,468,959	3,271,259,647	287·43	118,700,333	129,315,442	13,393,432	11·36
1941...	5,018,928,037	1,370,236,588	3,648,691,449	317·08	377,431,802	139,178,670	14,910,554	12·10
1942...	6,648,823,424	2,603,602,263	4,045,221,161	347·11	396,529,712	155,017,901	21,748,701	13·30
1943...	9,228,252,012	3,045,402,911	6,182,849,101	523·44	2,137,627,940	188,556,249	41,242,237[3]	15·96
1944...	12,359,123,230	3,619,038,337	8,740,084,893	729·86	2,557,235,792	242,681,180	48,281,313[3]	20·27
1945...	15,712,181,527	4,413,819,509	11,298,362,018	932·29	2,558,277,125	318,994,821	60,749,186[3]	26·32
1946...	18,959,846,183	5,538,440,734	13,421,405,409	1,090·55	2,123,043,431	409,134,502	70,914,626[3]	33·24

[1] Based on the official estimates of population given at p. 100. [2] Includes non-active assets. [3] This amount represents return on investments, which includes interest on investments, profits of Bank of Canada and Central Mortgage Bank and other items.

Funded Debt Operations.—Conversions and other national debt operations carried out between 1914 and 1930 are dealt with at pp. 842-843 of the 1933 Year Book; those between 1931 and 1934 at pp. 905-907 of the 1934-35 Year Book; those of the fiscal years 1936 to 1943 in the respective Year Books for those years.

Treasury Bills.—During the past decade a market for short-term treasury bills that has proven highly satisfactory has been built up in Canada. Each issue, with two exceptions (where the bills were sold direct to the Bank of Canada), has been offered for public tender. Lists of treasury bills sold by public tender for the fiscal years 1934-35 to 1941-42 appear in the respective Year Books beginning with the 1937 edition. Details of the treasury bills issued in 1945-46 are given at the end of Table 23. Details of the issues in continuation of the list published at p. 778 of the 1942 Year Book may be obtained on request.

23.—Funded Debt and Treasury Bills of Canada, as at Mar. 31, 1946

NOTE.—Certain qualifications as to redemption prior to maturity govern most of these issues; they are explained fully in the "Public Accounts".

Date of Maturity	Description	Rate	Where Payable	Amount of Loan Outstanding	Annual Interest Charges
		p.c.		$ cts.	$ cts
1946—Apr. 15	One-Year Notes	1	Canada	250,000,000 00	2,500,000 00
Apr. 15	Two-Year Notes	1⅜	Canada	100,000,000 00	1,375,000 00
May 1	Third Victory Loan	1¾	Canada	144,253,000 00	2,524,427 50
July 1	School Land Debentures	4	Canada	33,293,470 85	1,331,738 83
Sept. 1	Six-Month Notes	⅝	Canada	256,000,000 00	1,600,000 00
Nov. 1	Fourth Victory Loan	1¾	Canada	197,455,000 00	3,455,462 50
Dec. 15	Victory Loan 1941	2	Canada	193,286,000 00	3,865,720 00
1947—May 1	Fifth Victory Loan, 1943	1¾	Canada	373,259,000 00	6,532,032 50
Oct. 1	Loan of 1897	2½	London	103,084 94	2,577 12
1948—Jan. 15	Loan of 1943	2½	New York	30,000,000 00	750,000 00
Feb. 1	First War Loan, 1940	3¼	Canada	50,000,000 00	1,625,000 00
Mar. 1	Second Victory Loan, 1942	2¼	Canada	269,879,000 00	6,072,277 50
Mar. 1	Sixth Victory Loan, 1944	1¾	Canada	239,713,000 00	4,194,977 50
Nov. 1	Seventh Victory Loan, 1944	1¾	Canada	344,267,000 00	6,024,672 50
1949—Feb. 1	First War Loan, 1940	3¼	Canada	50,000,000 00	1,625,000 00
June 1	Conversion Loan, 1937	3¼	Canada	33,500,000 00	1,088,750 00
Nov. 1	Eighth Victory Loan, 1945	1¾	Canada	267,800,000 00	4,686,500 00
1950—Feb. 1	First War Loan, 1940	3¼	Canada	50,000,000 00	1,625,000 00
Nov. 1	Ninth Victory Loan, 1945	1¾	Canada	335,690,000 00	5,874,575 00
1951—Feb. 1	First War Loan, 1940	3¼	Canada	50,250,000 00	1,625,000 00
June 15	Victory Loan, 1941	3	Canada	649,969,592 50	19,306,027 50
Nov. 15	Refunding Loan, 1937	3¼	Canada	60,000,000 00	1,950,000 00
1952—Feb. 1	First War Loan, 1940	3¼	Canada	50,500,000 00	1,625,000 00
Oct. 1	Second War Loan, 1940	3	Canada	324,945,700 00	9,748,371 00
Oct. 15	Loan of 1932	4	Canada	56,191,000 00	2,247,640 00
1954—Mar. 1	Second Victory Loan, 1942	3	Canada	676,355,489 00	20,089,767 00
1955—May 1	Loan of 1934	3¼	London	4,836,418 74	157,183 61
June 1	Loan of 1935, dated June 1	3	Canada	40,000,000 00	1,200,000 00
June 1	Loan of 1935, dated Nov. 15	3	Canada	55,000,000 00	1,650,000 00
1956—Nov. 1	Conversion Loan, 1931	4½	Canada	43,125,700 00	1,940,656 50
Nov. 1	Third Victory Loan, 1942	3	Canada	855,607,410 50	25,414,081 50
1957—May 1	Fourth Victory Loan, 1943	3	Canada	1,111,261,650 00	33,337,849 50
Nov. 1	Conversion Loan, 1931	4½	Canada	37,523,200 00	1,688,544 00
1958—Jan. 15	Loan of 1943	3	New York	30,000,000 00	900,000 00
June 1	Loan of 1938-39	3	Canada	88,200,000 00	2,646,000 00
Sept. 1	Loan of 1933	4	London	3,260,844 50	130,433 78
Nov. 1	Conversion Loan, 1931	4½	Canada	276,687,600 00	12,450,942 00
1959—Jan. 1	Fifth Victory Loan, 1943	3	Canada	1,197,324,750 00	35,919,742 50
Nov. 1	Conversion Loan, 1931	4½	Canada	289,693,300 00	13,036,198 50

23.—Funded Debt and Treasury Bills of Canada, as at Mar. 31, 1946—concluded

Date of Maturity	Description	Rate	Where Payable	Amount of Loan Outstanding	Annual Interest Charges
		p.c.		$ cts.	$ cts.
1960—June 1	Sixth Victory Loan, 1944	3	Canada	1,165,300,350 00	34,959,010 50
Oct. 1	Loan of 1930	4	New York	100,000,000 00	4,000,000 00
1961—Jan. 15	Loan of 1936	3¼	New York	48,000,000 00	1,560,000 00
1962—Feb. 1	Seventh Victory Loan, 1944	3	Canada	1,315,639,200 00	39,469,176 00
1963—July 1	Loan of 1938	3¼	London	3,643,482 41	118,413 18
Oct. 1	Eighth Victory Loan, 1945	3	Canada	1,295,819,350 00	38,874,580 50
1966—June 1	Loan of 1936	3¼	Canada	54,703,000 00	1,777,847 50
Nov. 1	Ninth Victory Loan, 1945	3	Canada	1,689,021,200 00	50,670,636 00
1967—Jan. 15	Loan of 1937	3	New York	55,000,000 00	1,650,000 00
Perpetual	Loan of 1936	3	Canada	55,000,000 00	1,650,000 00
1947—June 15	Non-interest Bearing Certificates	–	Canada	5,631,472 81	–
1950—June 15	Non-interest Bearing Certificates	–	Canada	387,017 94	–
	War Savings Certificates	3	Canada	273,760,075 80	8,212,802 27
	War Savings Stamps	–	Canada	5,304,569 50	–
	Refundable portion of personal income tax and excess profits tax (estimated)	2	Canada	515,736,835 92	5,274,812 38
1946—Apr. 12	Treasury Bills	0·363	Canada	75,000,000 00	272,250 00
Apr. 26	Treasury Bills	0·364	Canada	75,000,000 00	273,000 00
May 10	Treasury Bills	0·363	Canada	75,000,000 00	272,250 00
May 31	Treasury Bills	0·363	Canada	75,000,000 00	272,250 00
June 14	Treasury Bills	0·362	Canada	75,000,000 00	271,500 00
June 28	Treasury Bills	0·371	Canada	75,000,000 00	278,250 00
Apr. 2	Deposit Certificates	0·75	Canada	95,000,000 00	712,500 00
Apr. 9	Deposit Certificates	0·75	Canada	95,000,000 00	712,500 00
Apr. 16	Deposit Certificates	0·75	Canada	95,000,000 00	712,500 00
Apr. 23	Deposit Certificates	0·75	Canada	95,000,000 00	712,500 00
Sept. 3	Deposit Certificates	0·625	Canada	75,000,000 00	468,750 00
Sept. 10	Deposit Certificates	0·625	Canada	95,000,000 00	593,750 00
Sept. 17	Deposit Certificates	0·625	Canada	95,000,000 00	593,750 00
Sept. 24	Deposit Certificates	0·625	Canada	95,000,000 00	593,750 00
				16,807,177,765 41	436,223,926 67

Recapitulation

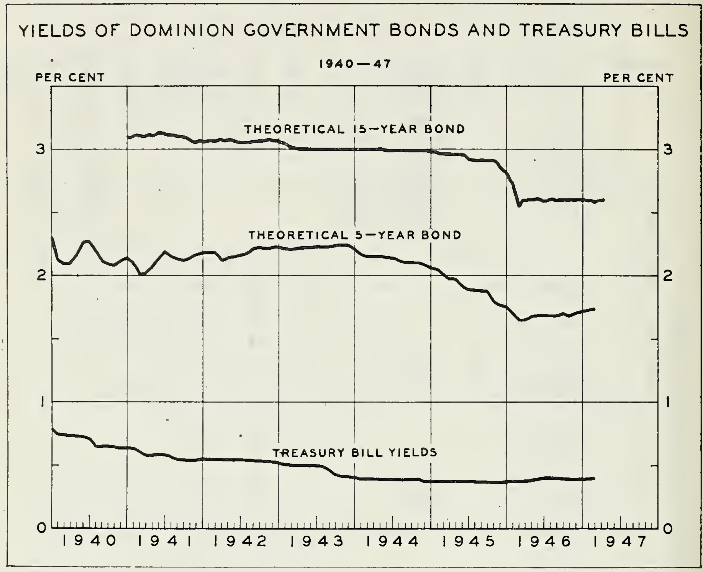
Payable in Canada	$16,617,333,934 82
Payable in New York	178,000,000 00
Payable in London	11,843,830 59
Totals, Funded Debt and Treasury Bills	**$16,807,177,765 41**

24.—Dominion of Canada Domestic Loan Flotations, 1945-46

NOTE.—Loan flotations from the outbreak of War until Mar. 31, 1946, are given at pp. 906-909 of the 1946 Year Book.

	Source of Borrowing and Title of Issue	Dated	Date of Maturity	Interest Rate	Price		Yield at		Issued for Cash	Issued as Renewals or Conversions	Total Amount Issued	Sub-scriptions
					To Public	To Govern-ment	Price to Public	Price to Govern-ment				
				p.c.	$	$	p.c.	p.c.	$	$	$	No.
	Treasury Bills—											
1	Net increase in Three-Month Treasury Bills	Various	Various	–	–	Various	–	Various	70,000,000	–	70,000,000	–
	Bank of Canada—											
2	One-Year Notes	Apr. 15, 1945	Apr. 15, 1946	1	–	100·00	–	1·00	–	250,000,000	250,000,000	–
3	Six-Month Notes	Apr. 16, 1945	Sept. 1, 1945	¾	–	100·00	–	0·75	–	102,000,000	102,000,000	–
4	Six-Month Notes	Sept. 1, 1945	Mar. 1, 1946	¾	–	100·00	–	0·75	–	256,000,000	256,000,000	–
5	Treasury Certificates	Mar. 1, 1946	Sept. 1, 1946	⅝	–	100·00	–	0·625	–	256,000,000	256,000,000	–
	Totals, Bank of Canada	–	–	–	–	–	–	–	–	864,000,000	864,000,000	–
	General Public—											
6	Eighth Victory Loan—Four and One-Half Year Bonds	May 1, 1945	Nov. 1, 1949	1¾	100·00	99·61	1·75	1·81	267,800,000	–	267,800,000	3,178,275
7	Eighth Victory Loan—Eighteen-Year and Three-Month Bonds	May 1, 1945	Oct. 1, 1963	3	100·00	99·35	3·00	3·05	1,295,819,350	–	1,295,819,350	
8	Ninth Victory Loan—Five-Year Bonds	Nov. 1, 1945	Nov. 1, 1950	1¾	100·00	99·66	1·75	1·82	335,690,000	–	335,690,000	2,947,636
9	Ninth Victory Loan—Twenty-Year and Ten-Month Bonds	Nov. 1, 1945	Sept. 1, 1966	3	100·00	99·40	3·00	3·04	1,691,796,700	–	1,691,796,700	
10	War Savings Certificates and Stamps (Net)	Various	Various	[1]	[1]	[1]	[1]	[1]	10,079,877	–	10,079,877	–
	Totals, General Public	–	–	–	–	–	–	–	**3,601,185,927**	–	**3,601,185,927**	–
	Grand Totals	–	–	–	–	–	–	–	**3,671,185,927**	**864,000,000**	**4,535,185,927**	–

[1] War Savings Certificates are issued on a discount basis, and yield 3 p.c. to the purchaser if held to maturity, seven and one-half years after date of issue.



Interest-Bearing Debt.—The interest-bearing debt of the Dominion has shown a sharp increase since 1939, amounting to $17,301,000,000 at Mar. 31, 1946, as compared with $3,658,000,000 on the same date of 1939. The average rate of interest on this debt continued downward during the war years, reaching the low point at Mar. 31, 1945 of 2·547 p.c. A slight increase to 2·634 p.c. was recorded in 1946. This is in contrast with the experience of the War of 1914-18, when the average interest rate on the direct debt of the nation rose from 3·368 p.c. at Mar. 31, 1913, to a high point of 5·164 p.c. at Mar. 31, 1922.

During the fiscal year ended Mar. 31, 1939, interest on the public debt absorbed about 26 p.c. of total government receipts. With the growth of expenditure during the war years, however, interest on the debt now absorbs a smaller portion of revenues, amounting to 15·1 p.c. in the year ended Mar. 31, 1946.

Guaranteed Debt.—Besides the direct debt of the Dominion, already dealt with, there are also large indirect obligations, arising mainly out of the guarantee of securities, by the Dominion, of the railway lines that now form the Canadian National Railways, and the subsequent extensions thereof. Together with these are other smaller indirect obligations, originating in the Government's guarantees of the bonds of the Canadian National Steamship services and of the bonds of its

25.—Interest-Bearing Debt, Annual Interest Charges Thereon and Average Rates of Interest, as at Mar. 31, 1913-46

Year	Bonds, Debentures, and Treasury Bills	Annual Interest Charges on Bonds, Debentures, and Treasury Bills	Average Interest Rate on Bonds, Debentures, and Treasury Bills	Savings Bank Deposits, Trust and Other Funds	Annual Interest On Savings Bank Deposits and Other Funds	Total Interest-Bearing Debt[1]	Annual Interest Charge	Average Rate of Interest
	$	$	p.c.	$	$	$	$	p.c.
1913...	260,869,037	8,973,746	3·439	91,735,123	2,904,287	352,604,160	11,878,033	3·368
1914...	311,833,272	11,162,047	3·579	93,031,928	2,957,544	404,865,200	14,119,591	3·487
1915...	358,659,932	13,075,447	3·645	91,910,510	2,935,881	450,570,442	16,011,328	3·554
1916...	508,000,366	20,499,696	4·035	92,240,955	2,960,002	600,241,321	23,459,698	3·908
1917...	893,208,877	39,098,579	4·376	96,885,192	3,114,315	990,094,069	42,212,894	4·2.3
1918...	1,472,098,608	71,121,368	4·831	95,796,899	3,096,532	1,567,895,507	74,217,900	4·733
1919...	2,035,218,097	102,218,489	5·022	100,636,102	3,441,803	2,135,854,199	105,660,292	4·947
1920...	2,596,816,821	134,559,302	5·181	107,038,317	4,275,480	2,703,855,138	138,834,782	5·134
1921...	2,520,997,021	130,416,007	5·173	107,345,348	4,429,302	2,628,342,369	134,845,309	5·130
1922...	2,564,587,671	133,482,113	5·204	105,379,439	4,399,661	2,669,967,110	137,881,774	5·164
1923...	2,547,105,821	131,476,511	5·161	106,763,391	4,531,156	2,653,869,212	136,007,667	5·125
1924...	2,504,033,820	128,571,337	5·134	110,113,766	4,626,715	2,614,147,586	133,198,052	5·092
1925...	2,503,763,169	125,928,071	5·029	113,943,282	4,758,780	2,617,706,451	130,686,851	4·992
1926...	2,484,410,336	125,108,738	5·035	119,205,393	4,977,889	2,603,615,729	130,086,627	4·996
1927...	2,439,340,736	123,399,911	5·058	126,310,527	5,274,429	2,565,651,263	128,674,340	5·015
1928...	2,377,581,086	119,479,400	5·025	136,485,482	5,721,330	2,514,066,568	125,200,730	4·980
1929...	2,325,413,986	116,843,934	5·024	145,780,369	6,156,036	2,471,194,355	122,999,970	4·977
1930...	2,250,837,286	112,942,215	5·017	154,997,435	6,572,018	2,405,834,721	119,514,233	4·967
1931...	2,320,832,286	115,491,955	4·976	163,994,443	6,969,151	2,484,826,729	122,461,106	4·928
1932...	2,579,238,724	128,188,969	4·970	136,356,977	5,522,579	2,715,595,701	133,711,548	4·923
1933...	2,715,977,874	132,866,543	4·892	144,176,675	5,858,850	2,860,154,549	138,725,393	4·850
1934...	2,858,624,524	132,354,806	4·630	154,137,868	6,093,937	3,012,762,392	138,448,743	4·595
1935...	3,061,955,821	127,074,870	4·150	171,554,957	6,683,560	3,233,510,778	133,758,430	4·136
1936...	3,265,314,332	128,598,908	3·938	196,197,897	7,679,285	3,461,512,229	136,278,193	3·937
1937...	3,337,358,832	125,093,381	3·748	224,157,683	8,798,557	3,561,516,515	133,891,938	3·759
1938...	3,314,558,032	117,062,907	3·532	248,176,039	9,771,812	3,562,734,071	126,834,719	3·560
1939...	3,385,722,462	119,198,476	3·521	272,692,286	9,879,428	3,658,414,748	129,077,904	3·528
1940...	3,695,705,919	125,575,106	3·398	288,066,211	10,726,716	3,983,772,130	136,301,822	3·421
1941...	4,372,007,319	133,970,676	3·064	317,332,308	12,488,959	4,689,339,627	146,459,635	3·123
1942...	5,865,280,821	170,218,719	2·902	343,238,738	13,522,857	6,208,519,559	183,741,576	2·960
1943...	7,893,493,950[2]	204,896,794	2·596	377,869,660	14,779,052	8,271,363,610	219,675,846	2·656
1944...	10,936,847,068[2]	278,792,582	2·549	415,629,678	16,251,031	11,352,476,746	295,043,613	2·599
1945...	13,983,763,575[2]	351,589,751	2·514	458,079,901	18,304,039	14,441,843,476	369,893,790	2·547
1946...	16,807,177,765	436,223,927	2·595	494,177,833	19,517,520	17,301,355,598	455,741,447	2·634

[1] Includes bonds purchased and held by the Treasury for sinking funds.

[2] Includes refundable portion of income tax and excess profits tax.

Harbour Commissions, issued in the main for harbour improvements. Since 1932, guarantees of certain bank loans have been made under the various Relief Acts. With the commencement of business of the Bank of Canada on Mar. 11, 1935, the guarantee [authorized by Sect. 27 (6) of the Bank of Canada Act] of the deposit required to be maintained in the Bank of Canada by every chartered bank, came into force. This guarantee will require to be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities, and if the Bank suspends payment of any of its liabilities".

For full details of other guarantees also outstanding at Mar. 31, 1946, see Schedule "V" to the "Public Accounts" for 1946.

26.—Guaranteed Debt of the Dominion Government (Amounts Held by the Public), as at Mar. 31, 1924-46

NOTE.—Dashes in this table indicate that there were no guarantees of the type shown for the corresponding years. Figures for the years 1914-23 are given at p. 837 of the 1943-44 Year Book.

Year	Railways, Guaranteed as to Principal and Interest	Railways, Guaranteed as to Interest Only	Canadian National Steamships	Harbour Commissions	Other Guarantees	Bank of Canada	Total
	$	$	$	$	$	$	$
1924....	309,628,762	216,207,142	–	–	–	–	525,835,904
1925....	365,915,762	216,207,142	–	–	–	–	582,122,904
1926....	364,415,762	216,207,142	–	–	–	–	580,622,904
1927....	397,795,002	216,207,142	–	4,000,000[1]	–	–	618,002,144
1928....	440,224,186	216,207,142	828,789[1]	9,467,165	–	–	666,727,282
1929....	472,709,509	216,207,142	7,936,486	17,355,118	–	–	714,208,255
1930....	590,091,292	216,207,142	9,400,000	21,335,118	–	–	837,033,552
1931....	707,474,852	216,207,142	9,400,000	21,835,118	–	–	954,917,112
1932....	753,080,146	216,207,142	9,400,000	21,835,118	–	–	1,000,522,406[2]
1933....	748,874,239	216,207,142	9,400,000	21,670,472	28,272,301[1,2]	–	1,024,424,154[2]
1934....	746,035,434	216,207,142	9,400,000	21,634,472	93,296,073[2]	–	1,086,573,121[2]
1935....	740,117,976	216,207,142	9,400,000	21,601,481	104,525,860	149,028,902[1]	1,240,881,361
1936....	747,366,632	216,207,142	9,400,000	21,576,481	96,044,370	188,202,917	1,278,797,542
1937....	756,163,072	216,207,142	9,400,000	21,565,595	14,836,167	194,275,314	1,212,447,290
1938....	803,740,048	216,207,142	9,400,000	21,260,595	18,399,635[3]	194,859,595	1,263,867,015[3]
1939....	838,658,616	216,207,142	9,400,000	21,200,338	87,617,198[3]	205,641,646	1,378,724,940[3]
1940....	837,708,753	216,207,141	9,400,000	21,163,338	68,430,115[3]	202,324,405	1,355,233,752[3]
1941....	836,398,498	117,072,699	9,400,000	21,145,182	121,802,817[3]	207,994,267	1,313,813,463[3]
1942....	755,223,525	33,075,010	9,400,000	21,143,182	136,112,799[3]	241,931,985	1,196,886,501[3]
1943....	675,957,496	10,505,683	9,400,000	21,046,682	90,604,364[3]	260,983,307	1,068,497,532[3]
1944....	659,921,136	9,116,527	9,400,000	21,005,682	53,712,958[3]	359,158,155	1,112,314,458[3]
1945....	567,810,980	8,495,920	9,400,000	20,958,182	84,729,879[3]	422,029,434	1,113,424,395[3]
1946....	502,265,560	8,358,001	9,400,000	20,958,182	9,188,294	518,135,599	1,068,305,636

[1] First year data recorded. [2] Unstated advances *re* wheat marketing are not included. [3] The main item in this category is the guarantee of bank advances to the Canadian Wheat Board. Does not include indeterminate amounts and amounts not yet determined.

Section 3.—Provincial Public Finance*

Subsection 1.—Revenues and Expenditures of Provincial Governments

Tables **27**, **28** and **29** present an over-all picture of Provincial Government finance by combining ordinary and capital account revenues and expenditures. These tables provide a more valid basis for comparison than those based on ordinary account alone because they eliminate inter-provincial and inter-year incomparabilities that arise through variations from province to province, and from year to year, in the type of expenditure capitalized. Since all expenditures, ordinary or capital, are included in the combined picture, amounts provided through ordinary account for debt retirement have been excluded to avoid duplication. Sinking fund earnings are not included as revenue. The tables present the "net" cost of services to the provinces after the following revenues have been offset against the corresponding expenditures: shared cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue exclusive of sinking fund earnings.

The year 1945, as in the preceding 5 years, saw provincial government revenues and expenditures reach very high levels. The combined net ordinary and capital revenues totalled $427,000,000 as compared with the 1944 total of $374,000,000, an increase of $53,000,000, or 14·2 p.c. The combined net ordinary and capital expenditures amounted to $383,000,000 as compared with a similar figure of $350,000,000 in 1944, an increase of $33,000,000, or 9·4 p.c. With the exception of Prince Edward Island and New Brunswick, surpluses were recorded by all provinces for the year under review and the total over-all surplus amounted to $44,000,000, ($56,000,000 in 1943 and $24,000,000 in 1944). Included in the total expenditures were capital expenditures of more than $30,000,000, which is an increase of about 16 p.c. on the over-all capital expenditures, in 1944, of $26,000,000. (See Table **27**.)

An examination of the details relating to both combined net ordinary and capital revenues and expenditures gives some insight into the factors contributing to their high level in 1945. Table **28** gives an outline of the revenue position. Liquor revenues increased over 1944 by $29,000,000, or 41·5 p.c.; gasoline tax revenues by $11,000,000, or 23·3 p.c.; while, conversely, revenue from the Federal Government decreased by $2,000,000, or 1·8 p.c. Increases in expenditures were chiefly accounted for by the following: Highways, Bridges and Ferries—$14,000,000, or 22·4 p.c.; Education—$9,000,000, or 13·6 p.c. and Public Welfare—$9,000,000, or 12·5 p.c. It is interesting to note that Debt Charges, exclusive of debt retirement, decreased by almost $2,000,000, or 3·0 p.c. (See Table **29**.)

There was a slight change from the year 1944 in the relative importance of revenue sources. In 1945, 30 p.c. of the total net revenue was derived from Taxes, (30 p.c. in 1944); 25 p.c. from Other Governments, (29 p.c. in 1944) and 23 p.c. from Liquor Control (19 p.c. in 1944).

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* Revised under the direction of J. H. Lowther, Director, Public Finance Division, Dominion Bureau of Statistics. Years referred to throughout this Section are fiscal years ended nearest Dec. 31 of year stated.

Provincial Governments made expenditures in just about the same ratios as in 1944. Expenditures on Public Welfare represented 22 p.c. of the total, (22 p.c. in 1944); Highways, Bridges and Ferries received 20 p.c. of the total expenditures, (18 p.c. in 1944); Education—19 p.c. ,(18 p.c. in 1944) and Debt Charges, exclusive of debt retirement—15 p.c., (17 p.c. in 1944).

It should be noted that Tables **27**, **28**, **29** and **30** exclude cash collected and payments and expenditures made *re* the Debt Reorganization Program of the Government of the Province of Alberta.

An examination of net combined ordinary and capital revenues and expenditures for all provinces on a per capita basis reveals the following points. Total net combined ordinary and capital revenues amounted to $35·30 per capita. Chief sources of revenue were: Taxes, $10·60; Other Governments, $8·80, and Liquor Control, $8·20. Total net combined ordinary and capital expenditures, per capita, were $31·60. At the same time, the more important expenditure functions in per capita terms were: Public Welfare, $7·00; Highways, Bridges and Ferries, $6·50; Education, $5·90 and Debt Charges, exclusive of debt retirement, $4·70.

Further statistical details are given in the report "Financial Statistics of Provincial Governments in Canada", published by the Dominion Bureau of Statistics.

27.—Net Combined Ordinary and Capital Revenues and Expenditures, by Provinces, 1943-45

Province	Revenues			Expenditures[1]		
	1943	1944	1945[3]	1943	1944	1945[3]
	$'000	$'000	$'000	$'000	$'000	$'000
Prince Edward Island	2,617[2]	2,183	2,529	2,546[2]	2,769	3,323
Nova Scotia	16,937	17,810	19,207	13,429	15,156	18,401
New Brunswick	13,724	14,246	15,605	12,137	15,901	17,352
Quebec	99,997	103,281	117,236	94,701	107,928	110,970
Ontario	117,483	115,712	132,911	102,292	113,486	124,777
Manitoba	19,995	21,325	24,199	14,465	14,572	16,958
Saskatchewan	30,931	31,002	34,992	20,219	22,707	27,851
Alberta	25,920	27,416	34,490[4]	19,890	22,623	23,480[4]
British Columbia	39,019	40,962	46,057	30,505	34,773	39,505
Totals	**366,623**	**373,937**	**427,226**	**310,184**	**349,915**	**382,617**

[1] Exclusive of debt retirement. [2] Fifteen months. [3] Subject to revision. [4] Excludes cash collected and payments and expenditures *re* Debt Reorganization Program.

28.—Details of Net Combined Ordinary and Capital Revenues, 1943-45

Item	1943	1944	1945[1]
Taxes—	$'000	$'000	$'000
Amusement	4,295	5,729	6,649
Corporation (arrears)	632	762	903
Gasoline	45,591	47,083	58,075
Income of persons (arrears)	1,104	591	349
Real property	6,576	6,521	5,613
Retail sales	17,520	17,856	20,827
Succession duties	24,402	23,482	25,217
Tobacco	4,491	4,999	5,636
Other taxes	3,790	4,156	5,539
Motor-vehicle licences	30,472	30,963	31,800
Other licences, permits and fees	9,672	11,036	12,426
Public domain	33,466	35,358	40,630
Liquor control	64,986	70,436	99,659
Dominion of Canada	111,578	107,368	105,412
Other revenue	8,048	7,597	8,491
Totals	**366,623**	**373,937**	**427,226**

[1] Subject to revision.

29.—Details of Net Combined Ordinary and Capital Expenditures, 1943-45

Item	1943	1944	1945[1]
	$'000	$'000	$'000
Legislation	3,151	3,199	4,167
General government	18,478	18,598	20,405
Protection to person and property	15,358	16,486	17,411
Highways, bridges and ferries	55,017	63,978	78,306
Public Welfare—			
Health	6,009	6,507	7,232
Labour	1,619	1,999	2,196
Relief	3,336	3,375	3,709
Old age pensions and pensions for the blind	15,547	18,249	20,368
Other public welfare	41,095	45,330	51,382
Education	49,619	63,375	71,978
Agriculture	13,107	15,910	14,064
Public domain	17,050	20,499	23,192
Debt charges[2]	62,018	58,746	56,959
Other	8,780	13,664	11,248
Totals	**310,184**	**349,915**	**382,617**

[1] Subject to revision. [2] Exclusive of debt retirement.

30.—Gross Ordinary Revenues and Expenditures of the Provincial Governments for Their Respective Fiscal Years Ended in the Census Years 1871-1931 and in Each Year from 1932-45.

NOTE.—For provincial ordinary revenues and expenditures in all other provincial fiscal years since Confederation, see the 1932 Year Book, pp. 734-736. Figures for intervening years between 1916 and 1931 are given at p. 875 of the 1938 Year Book. For dates on which the fiscal years of the provinces end, see Table **33**, p. 985.

Year	Prince Edward Island		Nova Scotia		New Brunswick		Quebec	
	Revenue	Expenditure	Revenue	Expenditure	Revenue	Expenditure	Revenue	Expenditure
	$	$	$	$	$	$	$	$
1871	385,014	406,236[1]	525,824	600,344	451,076	438,407	1,632,032	1,575,545
1881	275,380	261,276[1]	476,445	494,582	607,445	598,844	3,191,779	3,566,612
1891	274,047	304,486[1]	661,541	692,538	612,762	680,813	3,457,144	4,095,520
1901	309,445	315,326	1,090,230	1,088,927	1,031,267	910,346	4,563,432	4,516,554
1906	258,235[2]	264,135[1,2]	1,391,629	1,375,588	887,202	879,066	5,340,167	5,179,817
1911	374,798	398,490[1]	1,625,653	1,790,778	1,347,077	1,403,547	7,032,745	6,424,900
1916	508,455	453,151[1]	2,165,338	2,152,773	1,580,419	1,568,340	9,647,984	9,436,687
1921	769,719	694,042[1]	4,586,840	4,678,146	2,892,905	3,432,512	15,914,521	14,624,088
1926	832,551	756,114[1]	5,744,575	6,327,043	4,206,853	4,078,775	27,206,335	26,401,480
1931	1,149,570	1,453,191[1]	8,104,602	8,194,592	5,980,914	6,761,420	41,630,620	40,854,245
1932	1,206,026	1,277,401[1]	8,874,095	9,037,199	6,495,573	6,898,263	39,349,193	39,933,901
1933	1,263,063	1,392,276[1]	8,013,463	9,632,347	5,691,138	5,770,207	33,324,760	40,165,668
1934	1,385,777	1,656,924[1]	8,876,506	10,168,838	5,809,975	6,434,035	31,018,343	36,612,816
1935	1,535,709	1,912,006[1]	13,642,410[3]	14,540,011[3]	6,486,481	7,189,598	35,195,579	40,134,814
1936	1,718,466	1,743,120[1]	12,841,266	12,689,548	7,330,142	7,755,111	40,497,031	42,420,207
1937	1,830,260	1,951,034[1]	14,101,342	14,038,953	9,630,144	9,601,052	47,924,840	43,956,275
1938	1,894,135	1,974,248	14,870,251	14,724,114	10,551,806	10,492,396	56,303,738	53,295,451
1939	2,042,050	2,196,717	15,069,476	15,263,267	10,529,634	11,404,721	64,287,576	59,399,567
1940	2,030,366	2,152,101	16,443,946	15,497,608	12,459,611	11,921,467	59,153,857	66,441,201
1940[4]	1,970,000	2,195,000	16,962,000	15,790,000	12,859,000	12,427,000	72,228,000[2]	68,598,000[2]
1941	2,146,000[5]	2,134,000[5]	18,529,000	17,435,000	13,754,000	12,853,000	110,347,000	91,459,000
1942	2,278,000	2,273,000	20,462,000	17,737,000	16,216,000	15,056,000	114,583,000	101,293,000
1943	2,993,000	2,972,000	20,957,000	18,039,000	16,773,000	15,029,000	116,856,000	106,180,000
1944	2,564,000	2,907,000	22,526,000	20,252,000	17,875,000	17,318,000	122,308,000	118,306,000
1945[9]	2,904,000	3,203,000	24,367,000	23,187,000	19,454,000	18,981,000	137,617,000	122,929,000

Year	Ontario		Manitoba		Saskatchewan	
	Revenue	Expenditure	Revenue	Expenditure	Revenue	Expenditure
	$	$	$	$	$	$
1871	2,333,180	1,816,784	–	–	–	–
1881	2,788,747	2,592,800	121,867	226,808	–	–
1891	4,138,589	4,158,460	590,484	664,432	–	–
1901	4,466,044	4,038,834	1,008,653	988,251	–	–
1906	7,149,478	6,720,179	2,089,652	1,572,691	1,441,258[3]	1,364,352[3]
1911	9,370,834	9,916,934	4,454,190	4,002,826	2,699,603	2,575,145
1916	13,841,339	12,706,333	5,897,807	6,147,780	4,801,064	5,258,756
1921	30,411,396	28,579,688	9,358,956	10,063,139	11,789,920	12,151,665
1926	52,039,855	51,251,781	10,582,537	10,431,652	13,317,398	13,212,483
1931	54,390,092[6]	54,846,994[6]	13,842,511	14,491,673	14,346,010	18,202,677
1932	68,999,855	71,060,654	15,726,641	15,726,641	13,254,871	19,075,161
1933	67,800,543	67,324,118	13,838,339	15,782,904	16,177,784	16,756,421
1934	61,426,935	103,578,686	13,966,921	14,003,533	15,585,918	16,979,911
1935	30,941,953[7]	41,382,625[7]	16,092,546	15,933,111	15,278,905	18,115.533
1936	90,321,896	103,664,602	16,415,993	16,294,294	17,838,692	18,890,607
1937	107,088,435	97,774,496	17,214,854	16,934,472	18,388,857	19,635,392
1938	105,893,469	101,283,751	18,993,927	18,488,738	20,925,237	21,112,402
1939	102,839,891	102,517,396	19,058,042	19,058,042	22,867,874	23,238,365
1940	106,384,870	109,618,967	20,223,411	20,223,411	25,002,817	25,006,591
1940[4]	131,216,000	116,857,000	23,514,000	22,306,000	28,756,000	33,203,000
1941	136,022,000	119,530,000	22,346,000	19,798,000	30,408,000	27,817,000[8]
1942	132,145,000	114,906,000	23,186,000	19,386,000	30,615,000	25,959,000
1943	141,268,000	128,923,000	24,446,000	20,025,000	37,454,000	27,743,000[8]
1944	140,627,000	139,503,000	25,669,000	20,641,000	37,551,000	29,607,000[8]
1945[9]	159,631,000	151,695,000	28,259,000	22,628,000	41,570,000	34,810,000[8]

For footnotes see end of table.

30.—Gross Ordinary Revenues and Expenditures of the Provincial Governments for Their Respective Fiscal Years Ended in the Census Years 1871-1931 and in Each Year from 1932-45—concluded.

Year	Alberta		British Columbia		Totals for All Provinces	
	Revenue	Expenditure	Revenue	Expenditure	Revenue	Expenditure
	$	$	$	$	$	$
1871	–	–	191,820[10]	97,692[10]	5,518,946	4,935,008
1881	–	–	397,035	378,779	7,858,698	8,119,701
1891	–	–	959,248	1,032,104	10,693,815	11,628,353
1901	–	–	1,605,920	2,287,821	14,074,991	14,146,059
1906	1,425,059[2]	1,485,914[2]	3,044,442	2,328,126	23,027,122	21,169,868
1911	3,309,156	3,437,088	10,492,892	8,194,803	40,706,948	38,144,511
1916	5,281,695	6,018,894	6,291,694	10,083,505	50,015,795	53,826,219
1921	11,086,937	13,109,304	15,219,264	15,236,931	102,030,458	102,569,515
1926	11,912,128	11,894,328	20,608,672	19,829,522	146,450,904	144,183,178
1931	15,710,962	18,017,544	23,988,199	27,931,866	179,143,480	190,754,202
1932	13,492,430	18,645,481	25,682,892	32,734,453	193,081,576	214,389,154
1933	15,426,265	17,533,786	23,333,115	26,169,492	184,868,470	200,527,219
1934	15,178,607	17,056,639	22,618,367	22,992,344	175,867,349	229,483,726
1935	15,790,170	17,528,221	25,603,942	24,439,767	160,567,695	181,175,686
1936	16,636,652	18,287,450	29,016,044	26,396,869	232,616,182	248,141,808
1937	20,743,046	20,665,193	31,575,892	28,886,870	268,497,670	253,443,737
1938	24,127,806	21,359,739	34,395,477	31,130,578	287,955,846	273,861,417
1939	24,269,817	21,242,625	35,908,899	34,907,898	296,873,259	289,228,598
1940	24,410,040	21,922,189	36,417,312	33,037,276	302,526,230	305,820,811
1940[4]	25,956,000	21,597,000	41,850,000	37,957,000	355,311,000	330,930,000
1941	28,104,000	20,845,000	43,135,000	37,947,000	404,791,000	349,818,000
1942	28,752,000	21,312,000	44,148,000	36,273,000	412,385,000	354,195,000
1943	30,528,000	22,721,000	44,496,000	37,158,000	435,771,000	378,790,000
1944	32,560,000	25,002,000	47,295,000	40,619,000	448,975,000	414,155,000
1945[9]	40,651,000[11]	28,034,000[11]	53,468,000	45,607,000	507,921,000	451,074,000

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[1] Includes expenditure on capital account, which is not separable. [2] Nine months. [3] Fourteen months. [4] To facilitate interprovincial comparisons, the ordinary revenues and expenditures as shown in the various Public Accounts have been placed on a gross basis and certain adjustments made. For reconciliation with various Public Accounts see "Financial Statistics of Provincial Governments in Canada for 1940" and subsequent years. Statistics for the years shown below rule are for fiscal years ended nearest Dec. 31 of year stated. [5] Fifteen months. [6] Exclusive of interest paid by Hydro and other commissions. [7] Five months. [8] Excludes $7,136,000 in 1941, $1,510,000 in 1943, $16,878,000 in 1944 and $8,000 in 1945 implementing guarantees *re* Municipalities Seed Grain and Supply Act, 1937. [9] Subject to revision. [10] Six months. [11] Excludes cash collected and payments and expenditures *re* Debt Reorganization Program.

Subsection 2.—Debt of Provincial Governments

Funded Debt.—In 1945, gross funded debt represented 82 p.c. of gross direct debt—approximately the same ratio as applied in 1944 (83 p.c.). Gross funded debt of all Provincial Governments which totalled $218,870,000 in 1916, increased steadily until 1940 when it reached a peak of $1,734,000,000. While it has since declined each year to $1,642,000,000 in 1945, a reduction since 1940 of $92,000,000; this reduction was not common to all provinces: the gross funded debt of Prince Edward Island, New Brunswick and Quebec increased between 1940 and 1945. Table **31** also indicates an over-all decrease in the average coupon rate between 1940 and 1945 of 0·3 p.c., although the average term of issue has increased slightly.

There has been a significant reduction in the amount of Provincial Government foreign pay bonds as illustrated by the fact that bonds, payable in Canada only, have increased by approximately $39,000,000 during the period 1940-45, although there has been a concurrent decrease of over $92,000,000 in gross funded indebtedness. (See Table **32**.)

Total Debt of Provincial Governments.—Table **33** has been assembled on a comparable basis for each province: the analysis is on the same basis as that of Dominion and municipal indebtedness shown in Tables **22** and **40** respectively.

31.—Gross Bonded Debt (Exclusive of Treasury Bills) of Provincial Governments, 1941-45

NOTE.—Figures are as at provincial fiscal year ends nearest Dec. 31 of the year stated. Figures for years 1916-30 are given at p. 877 of the 1938 Year Book; for the years 1931-40 at p. 787 of the 1942 edition.

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Bonded Debt	Average Coupon Rate	Average Term of Issue
	Prince Edward Island			Nova Scotia		
	$'000	p.c.	yrs.	$'000	p.c.	yrs.
1941	10,668	4·01	11·8	108,187	3·94	20·1
1942	10,568	4·02	11·9	100,911	3·99	19·3
1943	10,518	3·97	11·7	100,921	3·92	19·8
1944	10,648	3·84	11·6	95,875	3·92	20·2
1945[1]	10,023	3·80	12·7	96,547	3·88	20·0
	New Brunswick			Quebec		
	$'000	p.c.	yrs.	$'000	p.c.	yrs.
1941	104,682	4·14	18·0	388,816	3·47	15·8
1942	106,505	4·16	18·1	396,071	3·53	16·7
1943	105,033	4·12	18·3	386,781	3·58	17·5
1944	104,828	4·07	18·1	406,781	3·53	17·4
1945[1]	112,284	3·95	17·6	412,811	3·47	17·3
	Ontario			Manitoba		
	$'000	p.c.	yrs.	$'000	p.c.	yrs.
1941	632,138	4·25	18·7	87,478	4·62	24·7
1942	624,244	4·14	20·1	86,545	4·61	24·7
1943	629,129	3·96	19·4	83,775	4·50	24·3
1944	611,620	3·93	19·3	79,630	4·43	24·0
1945[1]	583,312	3·92	19·9	75,691	4·46	24·6
	Saskatchewan			Alberta		
	$'000	p.c.	yrs.	$'000	p.c.	yrs.
1941	126,337	4·65	22·8	128,176	4·88	26·4
1942	126,303	4·62	22·4	128,123	4·89	26·4
1943	125,245	4·54	21·9	127,962	4·88	26·4
1944	127,456	4·50	21·6	127,961	4·88	26·4
1945[1]	119,793	4·50	22·0	114,600	3·47	23·4
	British Columbia			Totals		
	$'000	p.c.	yrs.	$'000	p.c.	yrs.
1941	121,791	4·55	23·4	1,708,273	4·16	19·6
1942	117,359	4·35	21·2	1,696,629	4·12	20·1
1943	114,918	4·34	21·4	1,684,282	4·05	20·0
1944	113,403	4·22	21·3	1,678,202	4·00	19·9
1945[1]	116,602	4·19	21·3	1,641,663	3·86	19·8

[1] Subject to revision.

32.—Total Gross Bonded Debt (Exclusive of Treasury Bills) of Provincial Governments, by Currency of Payment, 1941-45

Payable in—	1941	1942	1943	1944	1945[1]
	$'000	$'000	$'000	$'000	$'000
Canada only	934,165	964,860	978,401	979,545	967,965
London (England) only	49,633	45,681	45,530	45,413	37,215
London (England) and Canada	49,137	27,477	25,609	20,214	16,214
New York only	1,225	16,025	19,519	33,905	31,905
New York and Canada	398,994	371,907	348,835	355,426	353,205
London (England), New York and Canada	270,161	265,943	261,652	238,963	230,423
Other	4,958	4,736	4,736	4,736	4,736
Totals	**1,708,273**	**1,696,629**	**1,684,282**	**1,678,202**	**1,641,663**

[1] Subject to revision.

33.—Direct and Indirect Debt of Provincial Governments, 1945[1]

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Fiscal Year Ended	Mar. 31 1946	Nov. 30 1945	Oct. 31 1945	Mar. 31 1946	Mar. 31 1946	Apr. 30 1946	Apr. 30 1946	Mar. 31 1946	Mar. 31 1946	
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Direct Debt										
Funded Debt—										
Issued	10,023	96,547	111,724	410,596	583,312[2]	75,655	119,793	107,200	116,602	1,631,452
Assumed	-	-	560	2,215	-	36	-	7,400	-	10,211
Totals, Funded Debt	10,023	96,547	112,284	412,811	583,312	75,691	119,793	114,600	116,602	1,641,663
Less sinking funds	2,419	14,745[3]	16,573	71,811	22,524	18,903[4]	28,709	14	19,364	195,062
Net Funded Debt	7,604	81,802	95,711	341,000	560,788	56,788	91,084	114,586	97,238	1,446,601
Treasury Bills—										
Held by Dominion of Canada	-	-	-	-	-	24,735	92,750	26,219	34,370	178,074
Held by others	-	-	-	8,500	-	8,468	7,487	-	7,620	32,075
Total Treasury Bills	-	-	-	8,500	-	33,203	100,237	26,219	41,990	210,149
Savings deposits	-	-	-	-	47,364	-	-	1,084	-	48.448
Temporary loans	2,799	7,566	1,324	-	14,101	-	-	-	-	25,790
Superannuation and other deposits	12	-	217	4,664	7,622	2,518	1,311	4,231	2,559	23,134
Accrued expenditure	-	718	1,147	3,235	7,482	1,568	1,117	1,294	1,677	18,238
Accounts payable and other liabilities	-	3,118	729	9,030	2,190	45	714	11,628	4,521	31,975
Totals, Direct Debt (less sinking funds)	**10,415**	**93,204**	**99,128**	**366,429**	**639,547**	**94,122**	**194,463**	**159,042**	**147,985**	**1,804,335**
Indirect Debt										
Guaranteed bonds	50	1,343	1,243	5,584	117,386	2,180	472	282	6,594	135,134
Less sinking funds	-	70	192	140	1,780	-	373	-	2,072	4,627
Net Guaranteed Bonds, etc.	50	1,273	1,051	5,444	115,606	2,180	99	282	4,522	130,507
Loans under the Municipal Improvements Assistance Act, 1938	5	560	381	1,425	-	133	644	529	1,640	5,317
Guaranteed bank loans	5	884	434	3,655	2,096	-	592	1,124	-	8,790
Other indirect liabilities	32	4	-	27,633	3	-	517	-	2,746	30,935
Totals, Indirect Debt (less sinking funds)	**92**	**2,721**	**1,866**	**38,157**	**117,705**	**2,313**	**1,852**	**1,935**	**8,908**	**175,549**
Grand Totals, 1945	**10,507**	**95,925**	**100,994**	**404,586**	**757,252**	**96,435**	**196,315**	**160,977**	**156,893**	**1,979,884**
1944	**9,830**	**89,128**	**95,659**	**412,675**	**774,449**	**102,563**	**207,260**	**153,760**	**149,626**	**1,994,950**

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[1] Subject to revision. [2] Includes railway aid certificates. [3] Includes $2,399,058 sinking funds held by Nova Scotia Power Commission in respect of bonds issued by the Province. [4] Includes $147,000 profit on sale of investment.

34.—Total Direct and Indirect Debt of Provincial Governments, 1942-45

Item	1942	1943[1]	1944[1]	1945[2]
	$'000	$'000	$'000	$'000
Direct Debt				
Funded Debt—				
Issued	1,686,162	1,673,836	1,667,767	1,631,452
Assumed	10,467	10,446	10,435	10,211
Totals, Funded Debt	1,696,629	1,684,282	1,678,202	1,641,663
Less sinking funds	164,637	182,079	223,197	195,062
Net Funded Debt	1,531,992	1,502,203	1,455,005	1,446,601
Treasury Bills—				
Held by Dominion of Canada	166,918	166,563	182,871	178,074
Held by others	92,651	62,108	56,099	32,075
Totals, Treasury Bills	259,569	228,671	238,970	210,149
Savings deposits	39,705	41,560	45,771	48,448
Temporary loans	4,358	1,175	9,032	25,790
Superannuation and other deposits	17,955	20,249	21,814	23,134
Accrued expenditure	18,086	18,099	17,941	18,238
Accounts payable and other liabilities	20,517	15,256	17,340	31,975
Totals, Direct Debt (less sinking funds)	**1,892,182**	**1,827,213**	**1,805,873**	**1,804,335**
Indirect Debt				
Guaranteed bonds	151,392	148,509	151,022	135,134
Less sinking funds	5,786	5,550	6,370	4,627
Net Guaranteed Bonds, etc.	145,606	142,959	144,652	130,507
Loans under the Municipal Improvements Assistance Act, 1938	5,745	5,659	5,496	5,317
Guaranteed bank loans	20,812	21,367	9,731	8,790
Other indirect liabilities	17,818	22,325	29,302	30,935
Totals, Indirect Debt (less sinking funds)	**189,981**	**192,310**	**189,181**	**175,549**
Grand Totals	**2,082,163**	**2,019,523**	**1,995,054**	**1,979,884**

[1] Revised since the publication of the 1946 Year Book. [2] Subject to revision.

Section 4.—Municipal Finance*

Subsection 1.—The Organization and Growth of the Municipalities in Canada

Under the provisions of the British North America Act, the several provinces have jurisdiction and control over their respective organizations of municipal government. While the main types of municipalities are common to most provinces there is little or no similarity from the standpoint of prerequisites to incorporation, either as to area or population. In fact, some provinces have no specified requirements in this regard. There are, nevertheless, two main divisions into which incorporated municipalities may be grouped—urban and rural—each of which displays more or less distinct characteristics. The former comprises the cities, towns and villages. The official designation of the municipalities in the rural group, however, varies widely as between provinces: Townships in Ontario; Districts in British Columbia; Municipal Districts in Alberta; Counties in New Brunswick; Municipalities in Nova Scotia; Parishes and Townships in Quebec; and Rural Municipalities in Manitoba and Saskatchewan.

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* Revised under the direction of J. H. Lowther, Director, Public Finance Division, Dominion Bureau Statistics.

In 1945 there were 3,966 incorporated municipalities in Canada, as compared with 3,954 in 1944. The number of each different class or type of municipality, by provinces, for 1945 is shown in Table **35**.

It should be noted that the counties in Ontario and Quebec, which are incorporated municipalities, are comprised of local towns or villages and rural municipalities situated therein, which provide the necessary funds for the services falling within the scope of county administration. There are also 'counties' in the Provinces of Nova Scotia and New Brunswick, but these are basically the same as rural municipalities in the other provinces. In Saskatchewan and Alberta, there are areas very similar to rural municipalities except that they enjoy a lesser degree of local services and are not self-governing. These are called "Improvement Districts". The Provincial Governments administer the services provided in these areas and also levy and collect the necessary taxes. A 1943 Amendment to the Ontario Municipal Act provides for the erection of Improvement Districts governed by a board of trustees appointed by the Lieutenant-Governor in Council. The Local Government Districts Act, 1944, of Manitoba, authorizes the Lieutenant-Governor in Council to incorporate unorganized or disorganized territory and appoint administrators and a general supervisor.

35.—Municipalities in Canada, Classified by Provinces, 1945, with Totals for 1942-44

Note.—See text immediately preceding this table for interpretation of the statistics.

Province	Cities	Towns	Villages	Total Urban	Rural	Total Local Municipalities	Counties	Total Incorporated Municipalities
	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island	1	7	Nil	8	Nil	8	Nil	8
Nova Scotia	2	43	"	45	24	69	"	69
New Brunswick	3	19	2	24	15	39	"	39
Quebec	26	113	316	455	1,066	1,521	76	1,597
Ontario	28	147	156	331	569	900	38	938
Manitoba	4	31	23	58	115[1]	173	Nil	173
Saskatchewan	8	83	393	484	303	787	"	787
Alberta	7	51	146	204	60	264	"	264
British Columbia	34	Nil	29	63	28	91	"	91
Totals, 1945	**113**	**494**	**1,065**	**1,672**	**2,180**	**3,852**	**114**	**3,966**
1944	**112**	**494**	**1,057**	**1,663**	**2,177**	**3,840**	**114**	**3,954**
1943	**111**	**494**	**1,052**	**1,657**	**2,225**	**3,882**	**114**	**3,996**
1942	**111**	**495**	**1,049**	**1,655**	**2,245**	**3,900**	**114**	**4,014**

[1] Includes 5 units of self-government officially known as "suburban municipalities".

On the basis of the 1941 Census, over 10,689,000 or 93 p.c. of the population of the nine provinces was in incorporated municipalities. Table **36**, showing the comparable situation for each province, gives an indication of the development of self-government from the standpoint of the local population. The 800,000 persons excluded from the population in incorporated municipalities on this basis are comprised of those on Indian Reserves and in areas that have not yet reached the stage of development where self-government is felt necessary or desirable.

36.—Population of Incorporated Municipalities, by Provinces, 1941

Province	Total Population	Population of Incorporated Municipalities			Percentage Municipal to Total Population
		Urban	Rural	Total	
Prince Edward Island	95,047	24,340	Nil	24,340	25·6
Nova Scotia	577,962	267,540	308,304	575,844	99·6
New Brunswick	457,401	143,423	312,153	455,576	99·6
Quebec	3,331,882	2,109,684	1,137,519	3,247,203	97·5
Ontario	3,787,655	2,338,633	1,316,133	3,654,766	96·5
Manitoba	729,744	321,873	344,648	666,521	91·3
Saskatchewan	895,992	295,146	528,532	823,678	91·9
Alberta	796,169	306,586	321,219	627,805	78·9
British Columbia	817,861	443,394	170,269	613,663	75·0
Totals	**11,489,713**	**6,250,619**	**4,438,777**	**10,689,396**	**93·0**

Subsection 2.—Municipal Assessed Valuations

The revenue resources of municipalities are limited generally to direct taxation, based on assessed valuations of real and other types of property. In 1944, the total taxable assessed valuations on which taxes were levied was $7,963,405,203 of which approximately $5,193,918,239 or 65·2 p.c. was real property. The assessment of personal property has had its ups and downs particularly in the Prairie Provinces. The Maritime Provinces, Manitoba and Alberta are the only provinces at the present time in which municipalities assess and tax personal property. In Alberta only a few municipal authorities still retain this basis for tax revenue while in Manitoba it is used generally by all classes of municipalities, except cities. Aside from real property, the next important type of valuation for taxation purposes is business assessment, although not all provinces assess for business purposes separately and distinctly from real property valuations. A variation of methods, schedules and rates exists not only between provinces but also between municipalities within the same province. Some municipalities use the rental basis, others the value of floor space occupied and still others the capital value of the premises occupied. Most of the provinces have other miscellaneous types of assessment, the general nature of which will be noted from the footnotes to Table **37**. It will also be noted that income assessment, which formerly was employed in Nova Scotia and New Brunswick only, practically disappeared in 1942. This is a result of the operation of the Dominion-Provincial Tax Agreements whereby the provinces and municipalities abandoned the income-tax field for the duration of the War and a limited period thereafter, so as to leave it open to the Federal Treasury.

It should be noted that the figures in Table **37** are not entirely comparable, on an interprovincial basis, from the standpoint of relative values of properties taxable for municipal purposes. Each province operates under its own assessment laws, which are not all similar, either in application or in effect. For instance, in British Columbia cities and municipal districts improvements cannot be taxed on a value in excess of 75 p.c. of taxable values or in excess of 50 p.c. of taxable values in villages; the values actually taxed in 1945 ranged from *nil* to 70 p.c. In the majority of cases, improvements were assessed for tax purposes at 50 p.c. of taxable values, but for all municipalities the total improvements actually taxed represented approximately 46·4 p.c. of total taxable values. It should also be noted that Table **37** does not include assessed valuations in Improvement Districts for either Saskatchewan or Alberta. In Saskatchewan these amounted to $30,390,068, $29,998,740, $28,598,170, $27,327,995, and in Alberta to $69,829,495, $69,222,473, $59,607,462, $62,644,030, in 1942, 1943, 1944 and 1945, respectively. In addition there are other intra-provincial inconsistencies between municipalities which, in turn, further affect interprovincial comparisons. These may be said to be due to the lack of integrated municipal assessment systems and uniform standards for establishing values on a province-wide basis, under the direction and control of a central authority. Some provinces, however, have made considerable progress along these lines in recent years, as in the case of Saskatchewan, the results of which are referred to in the text following Table **37**.

37.—Municipal Assessed Valuations, by Provinces, 1942-45

Province and Year	Taxable Valuations on which Taxes were Levied					Total Exemptions
	Real Property	Personal Property	Business	Other[1]	Total	
	$	$	$	$	$	$
P.E.I.—[2]						
1942	10,461,900	4,198,728	-	-	14,660,628	6,387,100
1943	10,596,974	4,235,120	-	-	14,832,094	5,765,500
1944	10,467,726	4,172,328	-	-	14,640,054	5,765,500
1945	10,623,217	4,241,766	-	-	14,864,983	6,174,500
N.S.—						
1942	144,396,660[3]	25,221,005[3]	7,997,000[3]	3,430,695[3]	181,045,360	58,036,702
1943	146,795,972	25,213,006	8,497,785	3,618,725	184,125,488	71,105,886
1944	148,691,531	25,466,512	9,872,785	3,873,185	187,904,013	86,406,901
1945	152,778,340	26,674,666	10,206,195	3,960,665	193,619,866	57,044,978
N.B.—						
1942	119,978,494	15,999,852	9,517,851[4]	1,069,065	146,565,262	[5]
1943	121,698,829	15,678,211	9,454,085[4]	-	146,831,125	[5]
1944	127,220,640	16,548,973	15,396,604[4]	-	159,166,217	[5]
1945	146,980,050	21,229,398	16,196,114[4]	-	184,405,562	[5]
Que.—						
1942	2,262,977,961	-	-	56,626,262	2,319,604,223	795,802,904[6]
1943	-	-	-	-	2,301,613,338[7]	836,599,825[6]
1944	-	-	-	-	2,343,734,545[7]	839,704,322[6]
1945	[14]	[14]	[14]	[14]	[14]	[14]
Ont.—						
1942	2,747,522,083[8]	-	252,848,220[8]	8,549,967[8]	3,013,660,112	424,482,000[9]
1943	2,774,973,540[8]	-	262,665,481[8]	20,457,536[8]	3,062,227,526	428,846,000[9]
1944	2,796,478,478[8]	-	266,342,162[8]	-	3,066,176,684	433,985,000[9]
1945	2,826,780,212[8]	-	272,281,909[8]	-	3,109,062,121	440,533,000[9]
Man.—						
1942	425,124,454	5,392,525	11,324,348	-	441,841,327	160,902,755
1943	426,645,939	5,458,760	11,364,048	-	443,468,747	160,033,765
1944	428,936,654	5,357,925	11,498,477	-	445,793,056	160,724,099
1945	434,656,903	5,426,310	11,768,128	-	451,851,341	159,756,368
Sask.—						
1942	861,717,208	-	37,844,166	416,110	899,977,484	[5]
1943	828,873,155	-	36,894,640	398,075	866,165,870	[5]
1944	789,010,569	-	38,501,071	523,417	828,035,057	[5]
1945	782,673,415	-	39,278,142	526,266	822,477,823	93,565,542
Alta.—						
1942	464,190,235	653,762	12,028,057	6,195,481	483,067,535	[5]
1943	470,646,366	3,559,516	11,285,107	3,806,563	489,297,552	52,599,528[10]
1944	485,650,854	8,835,584	12,313,699	3,693,653	510,493,790	78,330,720
1945	496,660,321	10,384,400	12,227,048	3,147,230	522,418,999	66,787,105

For footnotes, see end of table, p. 990.

37.—Municipal Assessed Valuations, by Provinces, 1942-45—concluded

Province and Year	Taxable Valuations on which Taxes were Levied					Total Exemptions
	Real Property	Personal Property	Business	Other[1]	Total	
	$	$	$	$	$	$
B.C.—						
1942	392,276,211[11]	-	-	-	392,276,211	399,687,770[12]
1943	398,263,762[11]	-	-	-	398,263,762	413,604,030[12]
1944	407,461,787[11]	-	-	-	407,461,787	427,996,794[12]
1945	420,156,138[11]	-	-	-	420,156,138	414,560,613[12]
Totals—						
1942	**7,428,645,206**[8]	**51,465,872**[8]	**331,559,642**[8]	**76,287,580**[8]	**7,892,698,142**	**1,845,299,231**[13]
1943	**5,178,494,537**[8]	**54,144,613**[8]	**340,161,146**[8]	**28,280,899**[8]	**7,906,825,502**	**1,968,554,534**[13]
1944	**5,193,918,239**[8]	**60,381,322**[8]	**353,924,798**[8]	**8,090,255**[8]	**7,963,405,203**	**2,032,913,336**[13]
1945	[14]	[14]	[14]	[14]	[14]	[14]

[1] Includes the following: N.S.—Income Tax, Household Tax, the former withdrawn in 1942; N.B.—Income Tax; Que.—Miscellaneous Stock-in-Trade, Tenants Tax, *et al*, not specified; Ont.—Income of Corporations derived from interest earnings on investments discontinued in 1944; Sask.—Special Franchise; Alta.—Franchise and Other Special. [2] Includes estimated values for some municipalities, also total exemptions incomplete. [3] Total exemptions have been applied against real property valuations. [4] Includes some other types of valuations not specified. [5] Not available from published reports. [6] Includes temporary exemptions: $81,572,103 (1942); $76,494,294 (1943); and $61,283,443 (1944). [7] Detail not available. [8] Does not cross-add to total; see reports of Ontario Department of Municipal Affairs. [9] Cities only; exemptions for other municipalities not published. [10] Cities, with exception of Drumheller; exemptions for other municipalities not published. [11] Includes $177,991,707 (1942), $184,383,801 (1943), $192,542,560 (1944), and $201,269,083 (1945) valuations of improvements, the total value of which was $401,168,674 (1942), $412,707,744 (1943), $435,017,282 (1944) and $433,581,311 (1945) and the maximum value at which they could be taxed was $250,989,749 (1942), $257,964,422 (1943), $274,063,507 (1944) and $271,071,473 (1945). [12] Consists of $176,510,803 (1942), $185,280,087 (1943), $185,522,072 (1944) and $182,248,385 (1945) valuation of exempted properties, and $223,176,967 (1942), $228,323,943 (1943), $242,474,722 (1944) and $232,312,228 (1945) exemptions of taxable improvements as referred to in Footnote 11. [13] See Footnotes 5, 6, 9, 10 and 12. [14] At time of publication 1945 figures for Quebec were not available.

While complete figures for tax-exempt properties are not available for each province, it will be noted from the information given that these have assumed relatively high proportions. Most provinces have shown consistent increases in taxable assessed valuations which may be attributed largely to the stimulus to business and industry in general, arising from the War. Saskatchewan, however, shows a major reduction in total valuations. This is the result of a province-wide plan of re-assessment of rural municipalities by the Department of Municipal Affairs and is "the first occasion in Canada where an assessment system of such extensive proportions has ever been undertaken".*

Subsection 3.—Municipal Taxation

Table 38 shows, by provinces, the taxes levied by municipalities in comparison with collections in 1942, 1943, 1944 and 1945, and the total taxes outstanding at the end of those years. While these figures are as nearly comparable as may be obtained from existing published reports, they nevertheless reflect some inconsistencies due particularly to interprovincial variations in the division of responsibility for tax administration between municipalities and school authorities. In some instances school taxes are not included in the municipal levies. In Prince Edward Island 2 only of the 8 incorporated municipalities have their own individual school districts and levy and collect the school taxes. In Nova Scotia prior to 1943 and in New Brunswick prior to 1944, cities, towns and villages only levied and collected the school taxes. Hence the figures shown for these provinces are, generally speaking, exclusive of rural school taxes particulars of which are not available from published reports. Commencing with 1943, however, under a program for establishing "larger school units" in Nova Scotia, some municipalities have been levying and collecting the school taxes for and on behalf of the rural school boards situated therein. A similar program has also been inaugurated in New Brunswick, so that more complete figures are now available as the larger school units are gradually established. Prior to 1943, the figures for Alberta were incomplete because municipal taxes did not include certain school and hospital levies, which were not collected by the municipal unit or were regarded as "trust" taxes. This deficiency was corrected in the 1943 figures and reference to this fact is made in footnote 9, of Table 38, p. 992. In Quebec, while school taxes, with few exceptions, are levied and collected by the school corporations which function independently of municipal authorities, they are, nevertheless, included in this tabulation for purposes of greater interprovincial comparability. It will therefore be apparent from the foregoing that the figures in Table 38, except in the case of Quebec, represent only the amount of tax levies, collections and arrears of the municipalities, and include school taxes only to the extent that such are also levied and collected by the municipalities for and on behalf of local school authorities. Taxes for schools outside incorporated municipal organizations are not included.

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* Annual report of the Department of Municipal Affairs of the Province of Saskatchewan for the fiscal year ended Apr. 30, 1941.

38.—Municipal Taxation, by Provinces, 1942-45

NOTE.—See text on p. 990 for limitations on comparability of statistics in this table.

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	$	$		$	$	$	
P. E. Island—[1]							
1942	335,133	321,841	96·0	163,461	[2]	163,461	48·8
1943	339,632	344,677	101·5	152,766	[2]	152,766	45·0
1944	337,233	334,713	99·3	150,712	[2]	150,712	44·7
1945	377,487	379,576	100·6	146,975	[2]	146,975	38·9
Nova Scotia—							
1942	8,357,835	8,667,004	103·7	5,146,589	[2]	5,146,589	61·6
1943	9,084,299	9,446,146	104·0	4,606,728	304,148	4,910,876	54·1
1944	9,584,165	9,750,605	101·7	3,771,845	257,623	4,029,468	42·0
1945	10,046,450	10,216,800	101·7	3,386,493	232,897	3,619,390	36·0
New Brunswick—							
1942	5,120,066[3]	5,618,872[3]	109·7	4,515,132	[2]	4,515,132	71·0
1943	5,082,812[3]	5,462,616[3]	107·5	3,925,587	[2]	3,925,587	77·2
1944	5,377,195[3]	5,514,272[3]	102·5	3,526,083	[2]	3,526,083	65·6
1945	6,708,855[3]	6,545,264[3]	97·6	3,375,399	[2]	3,375,399	50·3
Quebec—							
1942	77,003,966	29,783,003[4]	103·6[4]	37,708,154	[2]	37,708,154	49·0
1943	75,906,155	77,519,824	102·1	26,080,874	16,564,008[5]	42,644,882	56·2
1944	74,428,078	31,008,759[4]	91·8[4]	19,553,478	14,756,456[5]	34,309,934	46·1
1945	[11]	[11]	[11]	[11]	[11]	[11]	[11]
Ontario—							
1942	110,277,001	115,283,970	104·5	19,673,211	14,395,229	34,068,440	30·9
1943	111,546,480	114,331,179	102·4	17,002,865	12,872,522	29,875,387	26·8
1944	111,380,748	114,435,002	102·7	13,977,678	13,422,460	27,400,138	24·6
1945	108,162,977	110,003,248	101·7	11,722,272	11,430,367	23,152,639	21·4

For footnotes, see end of table, p. 992.

38.—Municipal Taxation, by Provinces, 1941-45—concluded

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	$	$		$	$	$	
Manitoba—							
1942	17,634,629	19,368,465	109·8	7,395,197	15,242,846	22,638,043	128·4
1943	18,153,785	20,649,835	113·7	5,668,862	14,459,245	20,128,107	110·9
1944	18,884,541	21,162,059	112·1	4,502,178	7,408,245[6]	11,910,423[6]	63·1
1945	19,907,359	21,666,411	108·8	3,729,976	6,711,043	10,441,019	52·4
Saskatchewan—[7]							
1942	21,804,647	22,607,586	103·7	38,258,324	15,526,072	53,784,396	246·7
1943	22,097,720	29,917,214	135·4	29,216,503	16,515,146	45,731,649	206·9
1944	23,131,386	32,758,402	141·6	19,075,183	14,381,610	33,456,793	144·6
1945	24,472,774	26,771,259	109·4	14,381,434	13,164,621	27,546,055	112·6
Alberta—[7]							
1942	16,377,157	17,810,992	108·8	20,591,000	11,706,667[8]	32,297,667	197·2
1943	17,183,306[9]	20,503,890	119·3	18,379,502	14,723,032	33,102,534	192·6
1944	18,491,338	21,883,999	118·3	15,999,256	12,623,585	28,622,841	154·8
1945	20,126,704	21,982,639	109·2	14,324,099	10,827,365	25,151,464	124·9
British Columbia—							
1942	19,072,894	19,648,263	103·0	3,789,334	14,294,321	18,083,655	94·8
1943	19,302,324	20,020,366	103·7	3,004,761	13,046,087	16,050,848	83·2
1944	19,788,620	20,339,931	102·1	2,118,136	11,548,982	13,667,118	69·1
1945	20,824,066	21,144,607	101·5	1,760,416	10,351,989	12,112,405	58·2
Totals—							
1942	**275,983,328**	**239,109,996**[10]	**105·0**[10]	**137,240,402**	**71,165,135**[10]	**208,405,537**	**75·5**
1943	**278,696,513**	**298,195,747**[10]	**107·0**[10]	**108,038,448**	**88,484,188**[10]	**196,522,636**	**70·5**
1944	**281,403,304**	**257,187,742**[10]	**109·2**[10]	**82,674,549**	**74,398,961**[10]	**157,073,510**	**55·8**
1945	[11]	[11]	[11]	[11]	[11]	[11]	[11]

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[1] Includes estimates in some instances as actual figures are not available. [2] Not reported separately. [3] Excludes $1,243,384 in 1942, $1,266,087 in 1943, $1,328,914 in 1944 and $1,363,007 in 1945 compensation through Provincial Government for loss of income tax (see pp. 997 and 1005). [4] Excludes cities and towns. [5] Cities and towns only. [6] Reduction from 1943 accounted for by write-off of tax titles for city of Winnipeg. [7] Includes certain provincial and other special taxes (see text following this table), but excludes taxes in "Improvement Districts". [8] Cities only; not reported separately for other municapalities. [9] A large part of this increase is due to the inclusion of school and hospital levies formerly omitted because the municipal unit did not collect them or regard them as "trust" taxes. [10] See notes applying to the provinces. [11] At time of publication 1945 figures for Quebec were not available.

Because of these inconsistencies and the fact also that there are considerable differences in the division of responsibility for services between the Provincial Governments and their respective municipalities, extreme caution should be exercised in using these figures as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan and Alberta, municipalities are required to levy certain taxes for and on behalf of the Provincial Government and for other special purposes for which there is no comparable situation in other provinces. The amount of such taxes included in the municipal levies in these two provinces, are as follows:—

Item	*1942*	*1943*	*1944*	*1945*
	$	$	$	$
Saskatchewan—				
Public Revenue Taxes (Provincial)	1,785,638	1,718,209	1,650,131	1,621,273
Telephone and Hail Taxes	1,574,966	1,652,003	2,208,942	2,366,483
Totals, Saskatchewan	3,360,604	3,370,212	3,859,073	3,987,756
Alberta—				
Social Services, Educational and Wild Lands Taxes (Provincial)	1,045,855	983,286	1,010,475	1,033,456

There has been no marked fluctuation in the trend of municipal tax levies in Canada in the years 1942-45. While most provinces show increases, this does not necessarily mean an increased burden on the individual taxpayer in all instances, but is more the result, in part at least, of the increases reflected in assessed valuations. In Nova Scotia and New Brunswick the increases are, to a considerable extent, due to the establishment of "larger school units" previously referred to in this Section, whereby some municipalities are now levying certain taxes which formerly were levied by rural school boards. The most significant change that occurred during this period was the increase in tax collections in relation to total levies; this in turn has resulted in substantial reductions in the amount of unpaid taxes outstanding although these are still relatively high in most provinces. The situation for different classes of municipalities will, of course, vary considerably. Reference has heretofore been made to the Improvement Districts in Saskatchewan and Alberta, which although not being incorporated municipalities are, nevertheless, maintained by the Provincial Governments more or less as self-sustaining areas on the same basis. Taxation figures for these districts are excluded from Table 38 but by reason of the special significance attached thereto in relation to municipal organization in these provinces, and the fact that such may become incorporated, or part of existing municipalities at some future date, the corresponding information with respect thereto is shown in Table 39.

39.—Taxation in Improvement Districts of Saskatchewan and Alberta, 1942-45

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	$	$		$	$	$	
Saskatchewan—[1]							
1942	621,170	594,732	95·7	1,717,207	160,414	1,877,621	302·3
1943	641,380	807,927	126·0	1,554,204	185,338	1,739,542	271·2
1944	613,981	787,801	128·3	1,279,027	[2]	1,279,027	208·3
1945	511,947	537,908	105·1	1,137,871	224,829	1,362,700	266·2
Alberta—[3]							
1942	2,039,600	1,956,360	95·9	5,401,034	[4]	5,401,034	264·8
1943	1,966,296	2,284,376	116·2	4,553,510	[4]	4,553,510	231·6
1944	1,383,922	1,732,895	125·2	3,790,050	[4]	3,790,050	273·9
1945	1,524,539	1,611,255	105·7	3,891,080	[4]	3,891,080	255·2
Totals—							
1942	**2,660,770**	**2,551,092**	**95·9**	**7,118,241**	**160,414**	**7,278,655**	**273·6**
1943	**2,607,676**	**3,092,303**	**118·6**	**6,107,714**	**185,338**	**6,293,052**	**241·3**
1944	**1,997,903**	**2,520,696**	**126·2**	**5,069,077**	[4]	**5,069,077**	**253·7**
1945	**2,036,486**	**2,149,163**	**105·5**	**5,028,951**	**224,829**	**5,253,780**	**257·9**

[1] Includes Public Revenue (Provincial) Taxes of $60,471 (1942); $59,786 (1943); $56,998 (1944) and $54,459 (1945). [2] Not available. [3] Includes Social Services, Educational and Wild Lands Taxes (Provincial) of $193,717 (1942); and $184,336 (1943); not shown separately in 1944 or 1945. [4] Not reported separately.

Subsection 4.—Municipal Debt

The rapid growth experienced by municipalities in Canada coupled with increased demands and responsibilities for improvements, schools, utilities, and other services or facilities has resulted in the incurring of a heavy burden of debt. Debenture borrowings increased rapidly in the period 1900-12 and again during the 'twenties and early 'thirties. Since 1933, however, the trend has been downward.

Several important factors have contributed to this decline in municipal indebtedness, not the least important of which has been the measure of control exercised by Provincial Government departments over capital expenditures involving the incurring of debt. In addition, there was a more or less orderly retrenchment during the depression years following periods of what proved to be unwarranted expansion which, along with widespread demands to ease the tax burden on real property, has resulted in capital undertakings and works requiring debenture financing being severely curtailed. A further significant factor in this regard is that the greater part of the municipal long-term debt is represented by serial or instalment-type debentures, which require yearly repayments of principal. While the benefits of debt reduction are of course manifold, certain expenditures have been sorely needed in many communities for the rehabilitation of existing assets and for new improvements necessitated by the normal expansion and development that has taken place. These were sacrificed in the earlier years mainly in the interest of the taxpayer; subsequently, with the advent of the War in 1939, this policy of deferment was continued, if not extended, to free the financial market to the needs of the Federal Government in meeting its war financing requirements. Municipalities having been denied, either voluntarily or otherwise, improvement programs for so long, will show a natural tendency to get these under way as soon as possible in correlation with master post-war plans of the Federal and Provincial Governments. Table **40** shows figures of municipal indebtedness for 1945 and includes temporary loans and other liabilities in addition to debenture debt. Table **41** shows comparative figures for 1942, 1943 and 1944. The 1942 Year Book contains at pp. 792-793, a detailed description of the basis on which the information has been compiled. Reference should be made thereto, as well as to the footnotes to Table **40** in interpreting the information. A table at p. 791 of the 1941 Year Book shows the bonded indebtedness of municipalities from 1919 to 1938.

40.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1945

NOTE.—Compiled from published reports of Provincial Departments of Municipal Affairs, auditors reports and financial statements of municipalities, and information secured from other official sources. For a general explanation in regard to the items covered by this table, see text above.

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec[10]	Ontario
	$	$	$	$	$
Direct Debt—					
Debenture debt	3,101,957	30,230,918	23,610,122	–	237,675,182[1]
Less sinking funds	906,009	14,006,107	10,336,985	–	35,394,010
Net Debenture Debt	2,195,948	16,224,811	13,273,137	–	202,281,172
Temporary loans	47,928	1,479,714	1,486,265	–	6,858,664[2]
Accounts payable and other liabilities	31,921	1,159,758	4,454,432	–	15,131,339
Totals, Direct Liabilities (less sinking funds)	**2,275,797**[3]	**18,864,283**[3]	**19,213,834**[3]	–	**224,271,175**
Indirect Debt—					
Guaranteed bonds, debentures, etc.	[4]	796,200[5]	358,000	–	21,675,656
Less sinking funds	[4]	96,973	159,328	–	195,653
Totals, Indirect Liabilities (less sinking funds)	[4]	**699,227**[5]	**198,672**	–	**21,480,003**
Grand Totals	**2,275,797**	**19,563,510**	**19,412,506**	–	**245,751,178**

For footnotes, see end of table.

40.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1945—concluded

Item	Manitoba	Saskat-chewan	Alberta	British Columbia	Total[10]
	$	$	$	$	$
Direct Debt—					
Debenture debt	52,664,740	34,249,061[6]	39,521,012	103,558,029	-
Less sinking funds	23,179,383	12,547,124	1,316,323	31,877,382	-
Net Debenture Debt	29,485,357	21,701,937	38,204,689	71,680,647	-
Temporary loans	8,980,431[7]	990,039	3,469,333[8]	675,606	-
Accounts payable and other liabilities	4,978,101	38,291,808	6,777,854	6,520,701[9]	-
Totals, Direct Liabilities (less sinking funds)	**43,443,889**	**60,983,784**	**48,451,876**	**78,876,954**	-
Indirect Debt—					
Guaranteed bonds, debentures, etc.	14,543,120	[4]	[4]	14,485,278	-
Less sinking funds	5,125,949	[4]	[4]	3,169,428	-
Totals, Indirect Liabilities (less sinking funds)	**9,417,171**	[4]	[4]	**11,315,850**	-
Grand Totals	**52,861,060**	**60,983,784**	**48,451,876**	**90,192,804**	-

[1] Includes $6,659,203 net debenture debt (less sinking funds) and other capital liabilities of Separate School Boards and School Districts in unorganized areas (debenture payments in arrears are also included in this amount). [2] Excludes liabilities of schools and other local boards and commissions but includes in lieu thereof amounts due by municipal revenue fund accounts to such schools and other local authorities (information required to make the necessary eliminations on this account not available from published reports) (see Footnote 1). [3] Excludes rural schools. [4] None reported. [5] Includes bank loan of $1,200. [6] Includes Rural Telephone, Drainage District and Union Hospital District debentures. [7] Includes $4,088,267 treasury bills and $6,618,413 other floating debt less $2,274,260 sinking funds accumulated in respect thereof *re* city of Winnipeg. [8] Includes $2,970,429 treasury bills. [9] Includes $930,148 tax prepayment deposits. [10] At time of publication 1945 figures for Quebec were not available.

41.—Total Municipal and School Debt, 1942-45

NOTE.—Details by provinces and explanatory notes for 1945 are given in Table 40. Similar information for other years is contained in previous issues of the Year Book.

Item	1942	1943	1944	1945[1]
	$	$	$	$
Direct Debt—				
Debenture debt	1,136,866,471	1,074,777,247	1,006,936,615	-
Less sinking funds	257,963,903	254,863,821	178,759,054	-
Net Debenture Debt	878,902,568	819,913,426	828,177,561	-
Temporary loans	89,056,655	70,765,349	28,564,558	-
Accounts payable and other liabilities	133,117,180	140,750,554	123,952,084	-
Totals, Direct Liabilities (less sinking funds)	**1,101,076,403**	**1,031,429,329**	**980,694,203**	-
Indirect Debt—				
Guaranteed bonds, debentures, etc.	57,813,171	56,269,826	54,719,570	-
Less sinking funds	7,982,725	7,773,043	8,032,842	-
Totals, Indirect Liabilities (less sinking funds)	**49,830,446**	**48,496,783**	**46,686,728**	-
Grand Totals	**1,150,906,849**	**1,079,926,112**	**1,027,380,931**	-

[1] At time of publication, figures for Quebec were not available.

Available information indicates that the direct and indirect debt of municipalities continued, during 1945, the decline which had been evident since 1940. Retirement of direct debenture debt accounted for the major portion of the decrease during this period, although there have also been substantial reductions in unfunded liabilities. The decreases in debenture debt are due to the factors mentioned elsewhere in this Section while improved tax collections have made it possible for municipalities to avoid heavy temporary borrowings and reduce other current liabilities. It is pointed out in this respect that debenture debt figures are intended to represent only principal unmatured. Principal past due, whether in default or unpaid because of non-presentation, has been included with accounts payable and other liabilities. It is impossible to ascertain if this is a true statement of fact in all cases, however, as some reports do not indicate the exact situation. The more significant items available in this regard are given in Table **42**.

42.—Debenture Principal and Interest Due, 1942-45

Province and Item	1942	1943	1944	1945
	$	$	$	$
Prince Edward Island—				
Principal	4,000	10,500	1,000	4,200
Interest	6,017	5,574	6,370	4,695
Totals, Prince Edward Island	10,017	16,074	7,370	8,895
Nova Scotia—				
Principal	42,733	12,792	16,800	20,848
Interest	38,217	43,369	50,605	40,528
Totals, Nova Scotia	80,950	56,161	67,405	61,376
New Brunswick—				
Interest payable and accrued	240,654	244,629	253,353	298,937
Quebec—				
Principal past due (municipal)	26,182,369	39,082,078	1,921,580	[3]
Past due and accrued interest (municipal)	7,154,744	1,672,636	220,135	[3]
Principal and interest past due (schools)	599,345	696,921	802,646	[3]
Totals, Quebec	33,936,458	41,451,635	2,944,361	[3]
Ontario—				
Principal and interest past due (municipal)	2,594,288	4,157,693	6,052,495	4,306,906
Manitoba—				
Interest due (schools only)	227,199	119,732	98,745	116,667
Saskatchewan—				
Principal past due (excluding primary schools)	1,962,196	1,417,816	1,674,103	287,364
Interest past due (excluding primary schools)	2,675,390	3,041,548	3,113,957	1,329,752
Principal and interest past due (primary schools)	2,628,205	1,828,297	940,423	267,935
Totals, Saskatchewan	7,265,791	6,287,661	5,728,483	1,885,051
Alberta—				
Principal and interest past due (municipal)	[1]	655,186	445,145	534,533
Principal and interest past due (schools)	338,158	231,978	178,199[2]	130,529[2]
Totals, Alberta	338,158	887,164	623,344	665,062
British Columbia—				
Principal and interest past due	591,660	525,460	495,570	507,487
Grand Totals	**45,285,175**	**53,746,209**	**16,271,126**	[3]

[1] Not available from published reports.

[2] Principal only.

[3] At time of publication, 1945 figures for Quebec were not available.

PART IV.—OUTSTANDING DEVELOPMENTS IN THE TAXATION FIELD

Prior to the War of 1914-18, the Federal Government was able to finance its expenditures through the imposition of such indirect taxes as customs and excise duties. There were minor direct taxes imposed for other purposes than revenue but these, in the fiscal year 1914, amounted to less than 1·5 p.c. of the total revenue from taxation collected by the Dominion Government. To-day the significance of direct taxation is exemplified by the fact that direct taxation collected by the Federal Government (including income taxes, excess profits tax, gasoline tax and succession duties) accounts for about 60 p.c. of total taxation.

The unprecedented financial demands of the War of 1914-18 began to be felt by 1915 and between 1915 and 1917 the Dominion entered the direct-taxation field with the imposition of taxes on banks, trust and loan companies, insurance companies and business profits. The income tax was introduced in Canada in the latter year and continued to be an important source of revenue in the period between the two wars. The outbreak of war in 1939 and the resulting rapid expansion of expenditures by the Dominion led to a very substantial increase in individual and corporation income tax rates, the tax on excess profits was revived and made much more severe and the Dominion entered the fields of succession duties and gasoline taxes (the latter are semi-direct) which had hitherto been imposed exclusively by the provinces.

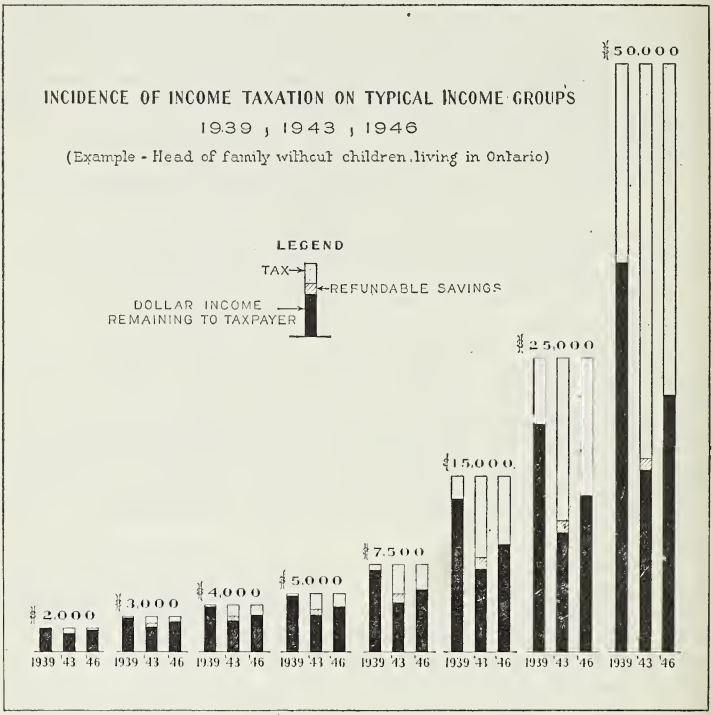
The first reductions to be made in direct tax rates, which were at such high levels during the war years, were presented in the 1945-46 Budget and included: a reduction of 4 p.c. in individual income tax for 1945 and of 16 p.c. for 1946; reduction of the 100 p.c. rates of excess profits tax to 60 p.c. from Jan. 1, 1946; and an increase in the minimum standard profit under excess profits tax from $5,000 to $15,000 from Jan. 1, 1946.

The 1946-47 Budget introduced a new tax structure for individual taxpayers effective on Jan. 1, 1947. The tax rates were lowered and the exemption levels were raised to $750 for single persons and $1,500 for married persons. The excess profits tax on individuals in business was eliminated and corporation tax rates were revised in such a way that the minimum Federal tax was reduced from 40 p.c. to 30 p.c. and the maximum from 60 p.c. to 45 p.c. A provincial corporation tax of 5 p.c. became collectable by the Federal Government in those provinces that entered into Dominion-Provincial Tax Agreements.

The 1947-48 Budget included further tax reductions in both the individual and corporation fields. Effective July 1, 1947, the rates of individual income tax were lowered for all ranges of income; the reduction amounted to 54 p.c. in the lowest levels of income and tapered down to 6 p.c. or 7 p.c. at the highest levels. Over a wide range of the so-called middle income brackets, the reduction was, on the average, 29 p.c. In the corporate field, the excess profits tax was eliminated as of Jan. 1, 1948.

The place that direct taxation has assumed in the general taxation picture and its incidence on the purse of the ordinary taxpayer has made it advisable to give this subject separate treatment but this should not detract attention from the important place that indirect taxation, through customs, excise and sales taxes, still holds in the taxation burden that the individual taxpayer is called upon to bear. (See Table 6, p. 955.)

In order to present a clearer picture of the main elements of direct or semi-direct taxation, Part IV has been divided into three Sections, dealing with income tax, gasoline taxes and succession duties, respectively.



NOTE.—For the year 1939, the taxes are the total collected by the Dominion and the Province of Ontario. For this year, the Dominion taxed all income over $14,000, whether estimated or earned, at the official rates applying to investment income. For the years 1943 and 1946, income up to $30,000 was considered as earned and income over this limit was classified as investment income.

Section 1.—Income Tax*

The income tax was instituted in 1917, as a part of what was known as war-tax revenue. Before the outbreak of the War of 1939-45 it had become a permanent and important part of the taxation structure, and the chief source of raising ordinary revenue. In many respects, it is an ideal form of direct taxation: in theory its incidence is admittedly fair and just, and the experience and machinery for the collection of this tax has been built up over a long period of years. The War, with its increased burden of taxation which, in turn, has made necessary the prepayment of taxes on a "pay-as-you-go" basis, has necessitated changes in the presentation of the statistics. Previously, comparisons for individuals between income assessed and tax paid were subject to the important qualification that, while the *income assessed* related to the net income upon which assessments had been approved for the year designated although the income itself was earned two years previously, the figures of *tax paid* included arrears of taxes that were assessed in previous years and even prepayments of taxes not due in the year under review. Under the present system, large sums of money are being collected month by month from individuals or their employers during the taxation year to which they apply. Analyses of *taxes paid* have not the same significance now as formerly except as indicating the trend of general collections: analyses of taxes *assessed for the taxation year* have now more significance. On the new basis the statistics are related to the year in which the income is earned by the taxpayer and all incomes earned in a particular year will be combined to form the taxation-year statistics for that year regardless of when the assessments are made by the Department.

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* More detailed information is given in the report "Taxation Statistics" published in September, 1947, by the Taxation Division, Department of National Revenue, Ottawa.

Subsection 1.—Collection Statistics

Collections on a Fiscal-Year Basis.—Collection statistics are gathered by the accounting section at the time the payments are made and, therefore, have the value of being very up-to-date. Their timeliness has been enhanced within the past few years by the adoption of the "pay-as-you-go" system which results in collecting tax substantially during the year in which the income is earned and, on the average, about ten months prior to the actual filing of an income tax return by the taxpayer. The payments on behalf of most taxpayers, however, are made by their employers and a cheque from one employer may cover the tax payments of hundreds of employees. At this stage, therefore, it is not possible to link the moneys received to the individuals who are, in the final analysis, contributing the tax. Collection statistics, as such, for this reason are not capable of being closely related to the persons who are being taxed and any statistical tables that attempt to describe the taxpayer, such as by occupation or income class, must be based on the income tax return which is filed by the taxpayer many months after the payment of his tax. However, collection statistics, if interpreted along with the tax rate, do serve the purpose of indicating the general trend of income upon which tax is levied well in advance of the assessment data.

The statistics given in Table **1** represent annual collections on a Government fiscal-year basis.

1.—Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1917-47

Year Ended Mar. 31—	Income Tax	Excess Profits Tax	Succession Duties	Total Collections
	$	$	$	$
1917	–	12,506,517	–	12,506,517
1918	–	21,271,084	–	21,271,084
1919	9,349,720	32,970,062	–	42,319,782
1920	20,263,740	44,145,184	–	64,408,924
1921	46,381,824	40,841,401	–	87,223,225
1922	78,684,355	22,815,667	–	101,500,022
1923	59,711,538	13,031,462	–	72,743,000
1924	54,204,028	4,752,681	–	58,956,709
1925	56,248,043	2,704,427	–	58,952,470
1926	55,571,962	1,173,449	–	56,745,411

1.—Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1917-47—concluded

Year Ended Mar. 31—	Income Tax	Excess Profits Tax	Succession Duties	Total Collections
	$	$	$	$
1927	47,386,309	710,102	-	48,096,411
1928	56,571,047	956,031	-	57,527,078
1929	59,422,323	455,232	-	59,877,555
1930	69,020,726	173,300	-	69,194,026
1931	71,048,022	34,430	-	71,082,452
1932	61,254,400	3,000	-	61,257,400
1933	62,066,697	54	-	62,066,751
1934	61,399,172	Nil	-	61,399,172
1935	66,808,066	"	-	66,808,066
1936	82,709,803	"	-	82,709,803
1937	102,365,242	"	-	102,365,242
1938	120,365,532	"	-	120,365,532
1939	142,026,138	"	-	142,026,138
1940	134,448,566	"	-	134,448,566
1941	248,143,022	23,995,269	-	272,138,291
1942	510,243,017	135,168,345	6,956,574	652,367,936
1943	910,188,672[1]	454,580,677[1]	13,273,483	1,378,042,832
1944	1,151,757,035[1]	468,717,840[1]	15,019,831	1,635,494,706
1945	1,072,758,068[1]	465,805,356[1]	17,250,798	1,555,814,222
1946	937,729,273[1]	494,196,483[1]	21,447,573	1,453,373,330
1947	963,458,245	448,697,443	23,576,071	1,435,731,759

[1] Including refundable portion and therefore does not agree with Table 8, p. 958.

Collections on a Taxation-Year Basis.—Table 1 reflects the total taxes collected during a Government fiscal year without regard to which particular taxation years the revenues applied. In Table 2 the collection of the more important taxes are rearranged in order to reveal the revenues received for the account of each succeeding taxation year.

A taxation year is a period of time during which income is received and becomes subject to tax at rates laid down in the Act. In the case of an individual, the taxation year is almost always the calendar year. In the case of a corporation the taxation year is the calendar year in which the company's fiscal period ends. Under the present system of collection, a substantial portion of the taxes is collected during the year in which the income is earned, that is to say, during the taxation year, and the balance is collected almost entirely in the two following years.

The general Head Office account for a taxation year is held open for statistical purposes for a period of three years. Thereafter, any taxes collected for a "closed" year are credited to a "Combined Years Account". As of Mar. 31, 1947, general Head Office accounts were open for the taxation years 1947, 1946 and 1945 and the Combined Account was known as 1917-44. All collections in the Combined Account are, in Table 2, credited to the last year in the Combined Account which in this case is 1944. The collections received in the Combined Account are relatively small and as each taxation year eventually receives the "combined" revenues for a twelve-month period it is not believed that this procedure materially affects the comparative table and it has the advantage of permanently closing off a taxation year for general statistical purposes. It is not to be understood from the foregoing description that the account of an individual taxpayer is closed off for any taxation year until full payment is received.

Table 2 distributes the collections from individual and corporation income and excess profits tax on a taxation-year basis.

2.—Individual and Corporation Income and Excess Profits Tax Collections by Taxation Years, 1917-47

Taxation Year	Income Tax		Excess Profits Tax		Total
	Individuals	Corporations	Individuals	Corporations	
	$	$	$	$	$
1917	11,646,282	4,637,894	–	–	16,284,176
1918	18,451,139	7,958,131	–	–	26,409,270
1919	33,278,516	20,335,729	–	–	53,614,245
1920	39,214,266	35,730,601	–	–	74,944,867
1921	29,434,661	26,622,035	–	–	56,056,696
1922	24,656,682	26,862,248	–	–	51,518,930
1923	25,132,971	30,625,328	–	–	55,758,299
1924	24,531,166	31,631,290	–	–	56,162,456
1925	19,417,049	28,973,085	–	–	48,390,134
1926	21,474,946	31,195,304	–	–	52,670,250
1927	22,317,810	33,923,492	–	–	56,241,302
1928	26,059,863	41,658,016	–	–	67,717,879
1929	26,976,728	44,845,939	–	–	71,822,667
1930	26,748,223	37,294,532	–	–	64,042,755
1931	26,830,974	31,104,795	–	–	57,935,769
1932	28,590,083	26,499,449	–	–	55,089,532
1933	26,168,150	29,222,435	–	–	55,390,585
1934	34,134,623	44,524,671	–	–	78,659,294
1935	35,102,446	53,276,177	–	–	88,378,623
1936	39,653,609	67,149,110	–	–	106,802,719
1937	45,730,913	88,919,516	–	–	134,650,429
1938	42,358,966	74,076,529	–	–	116,435,495
1939	54,781,130	90,498,381	–	–	145,279,511
1940	152,245,616	151,394,634	4,533,451	102,518,315	410,692,016
1941	329,333,512	224,471,245	10,148,521	252,371,160	816,324,438
1942	391,194,438	270,204,989	18,543,654	396,478,331	1,076,421,412
1943	825,781,811	278,507,805	25,375,690	458,896,881	1,588,562,187
1944	809,113,007	231,004,405	27,850,327	431,502,987	1,499,470,726
1945[1]	662,708,893	236,358,608	24,850,993	429,078,091	1,352,996,585
1946[1]	582,137,856	182,022,563	5,567,628	277,940,113	1,047,668,160
1947[1]	77,585,639	19,516,761	36,083	25,469,189	122,607,672

[1] The accounts for these taxation years are not yet closed and the figures are therefore not complete; there will be a small change in the 1945 account and substantial additions to the 1946 and 1947 accounts.

Adjusted Corporation Figures.—The Income War Tax Act and the Excess Profits Tax Act, 1940, each levy a separate tax on the same corporation profits in each year since 1940. The administration of the two Acts, the assessment of the two taxes and the collection of the two taxes is done concurrently by the Taxation Division. This has caused many corporation taxpayers to pay their taxes by means of a single cheque combining the two taxes without sufficient advice as to how the remittance is to be allocated between income tax and excess profits tax. The result of this practice has been that too much revenue has been credited to income tax and too little to excess profits tax. For those who wish to study the productivity of the two separate taxes the collection figures as remitted by the taxpayer are somewhat misleading.

Because of the variable rates implicit in the excess profits tax, no precise correction can be made but an approximate adjustment based on a large sample of cases is included in Table 3. It should be emphasized that the adjusted figures involve no change in the total taxes collected from corporations but simply reduce the amount credited to income tax and correspondingly increase the amount credited to excess profits tax.

3.—Adjusted Corporation Tax Collections, Taxation Years 1940-46

Taxation Year	Corporation Income Tax	Corporation Excess Profits Tax	Total
	$	$	$
1940	126,604,795	127,308,154	253,912,949
1941	183,009,878	293,832,527	476,842,405
1942	225,569,544	441,113,776	666,683,320
1943	224,262,250	513,142,436	737,404,686
1944	208,350,381	454,157,011	662,507,392
1945[1]	210,386,736	455,049,963	665,436,699
1946[1]	182,022,563	277,940,113	459,962,676

[1] The accounts for these taxation years are not yet closed and the figures are therefore not yet complete; there will be a small change in the 1945 account and substantial additions to the 1946 account.

Subsection 2.—Individual Income Tax Statistics

As stated on p. 1000, individual income tax statistics are henceforth to be presented on a taxation-year or calendar-year basis. Individual assessments statistics for the 1942 taxation year are summarized in Table 4. These figures have value for research purposes and as a matter of record, but it is realized that they are already out of date from the standpoint of studying current taxation of individuals, and therefore an estimate for the 1946 taxation year is presented in Table 5.

4.—Total Individual Assessments, by Income Classes, Occupational Classes and Provinces, Taxation Year 1942

NOTE.—The income used in this table is "taxable income" arrived at after deducting charitable donations but before deduction of specific exemptions for single or married status or for dependents.

Income Class	Tax-payers Assessed	Total Income Assessed	Total Tax Assessed	Class or Province	Tax-payers Assessed	Total Income Assessed	Total Tax Assessed
Income Class	No.	$'000	$'000	**Occupational Class**	No.	$'000	$'000
Under $1,000	313,913	258,754	13,079	Agrarians	21,158	41,898	3,271
$ 1,000—$ 2,000	913,944	1,378,043	76,900	Professional	19,382	88,783	14,041
$ 2,000—$ 3,000	379,101	896,440	70,439	Employees	1,573,189	2,837,764	230,713
$ 3.000—$ 4,000	87,556	297.586	32,385	Salesmen	11,039	34,876	4,226
$ 4,000—$ 5,000	31,944	141,742	18,603	Business proprietors	92,437	282,620	35,560
$ 5,000—$ 6,000	16,279	88,318	13,237	Armed Services	12,215	36,366	3,941
$ 6,000—$ 7,000	9,708	62,614	10,400	Financial	37,892	154,700	33,856
$ 7,000—$ 8,000	6,646	49,517	8,830	Estates	3,014	9,546	3,567
$ 8,000—$ 9,000	4,402	37,106	6,905	All others	10,918	36,670	6,516
$ 9,000—$10,000	3,399	32,393	6,393				
$10,000—$15,000	8,023	96,154	21,204	**Province**			
$15,000—$20,000	2,774	47,677	12,137	P. E. Island	3,589	7,164	610
$20,000—$25,000	1,303	28,871	7,892	Nova Scotia	70,515	135,067	11,688
$25,000—$50,000	1,694	56,300	17,350	New Brunswick	37,547	74,471	6,761
$50,000—$100,000	453	29,082	10,432	Quebec	429,474	863,252	85,821
Over $100,000	105	22,626	9,505	Ontario	808,937	1,614,949	157,066
				Manitoba	94,702	181,591	15,862
Totals	**1,781,244**	**3,523,223**	**335,691**	Saskatchewan	53,223	99,154	7,751
				Alberta	83,924	160,750	13,742
				British Columbia	198,257	384,364	36,077
				Yukon	1,076	2,461	313

Preliminary Estimate, 1946 Taxation Year.—Income tax returns for the 1946 taxation year were not yet due or received at the time the estimates shown in Table **5** were compiled, so that the information is necessarily very tentative. It is not possible, at present, to analyse these data on a provincial or an occupational basis in order to present them on a comparable basis with the 1942 final estimate.

The flat 16 p.c. reduction of individual income tax announced in October of 1945 is fully taken into account in the preparation of this estimate. However, the recovery of Family Allowance payments to those who also received income tax reductions for dependents is separately estimated in the footnote to Table **5**.

5.—Individual Income Tax Estimates, Taxation Year 1946

Note.—The income used in this table is the income prior to allowable deduction for charitable donations or medical expenses.

Income Class	Taxpayers	Total Income	Total Tax	Average Tax
	No.	$'000	$'000	$
$660 to $ 700	50,300	33,701	302	6
$700 to $ 800	136,000	102,000	3,198	24
$800 to $ 900	136,900	116,229	6,323	46
$900 to $1,000	119,800	113,571	7,310	61
$660 to $1,000	443,000	365,501	17,133	39
$1,000 to $1,100	98,800	103,543	8,252	84
$1,100 to $1,200	81,200	93,218	8,631	106
$1,200 to $1,300	169,400	211,412	10,157	60
$1,300 to $1,400	156,400	210,827	11,518	74
$1,400 to $1,500	149,800	216,910	12,717	85
$1,500 to $1,600	148,800	230,343	14,705	99
$1,600 to $1,700	145,775	240,237	15,282	105
$1,700 to $1,800	132,900	232,309	15,799	119
$1,800 to $1,900	124,075	229,290	16,769	135
$1,900 to $2,000	106,900	208,241	16,386	153
$1,000 to $2,000	1,314,050	1,976,330	130,216	99
$2,000 to $2,100	102,300	209,511	17,408	170
$2,100 to $2,200	87,275	187,466	16,551	190
$2,200 to $2,300	75,150	168,935	15,704	209
$2,300 to $2,400	62,100	145,811	14,358	231
$2,400 to $2,500	53,475	130,906	13,518	253
$2,500 to $2,600	43,550	110,921	11,906	273
$2,600 to $2,700	37,565	99,435	11,151	297
$2,700 to $2,800	30,900	84,882	10,007	324
$2,800 to $2,900	26,755	76,173	9,423	352
$2,900 to $3,000	23,755	70,004	9,084	382
$2,000 to $3,000	542,825	1,284,044	129,110	238
$3,000 to $3,500	81,200	262,276	37.174	458
$3,500 to $4,000	43,250	161,107	26,108	604
$4,000 to $4,500	27,600	117,024	21,353	774
$4,500 to $5,000	18,140	85,895	16,982	936
$3,000 to $5,000	170,190	626,302	101,617	597
$5,000 to $ 6,000	23,235	126,284	28,319	1,219
$6,000 to $ 7,000	13,895	89,624	21,780	1,567
$7,000 to $ 8,000	9,500	70,778	18,612	1,959
$8,000 to $ 9,000	6,320	53,406	14,810	2,343
$9,000 to $10,000	4,820	45,791	13,545	2,810
$5,000 to $10,000	57,770	385,883	97,066	1,680

5.—Individual Income Tax Estimates, Taxation Year 1946—concluded

Income Class	Taxpayers	Total Income	Total Tax	Average Tax
	No.	$'000	$'000	$
$10,000 to $15,000	10,305	118,509	42,249	4,100
$15,000 to $20,000	3,535	60,715	24,889	7,040
$20,000 to $25,000	1,650	36,631	16,324	9,893
$10,000 to $25,000	15,490	215,855	83,462	5,388
$25,000 to $50,000	1,900	62,700	32,073	16,880
$50,000 to $100,000	475	30,875	18,232	38,380
$100,000 or over	109	–	15,514	142,330
$25,000 or over	2,484	93,575	65,819	26,497
Grand Totals	**2,545,809**	**4,947,490**	**624,423**[1]	**245**

[1] In addition to this amount, it is estimated that $37,163,000 will be collected through recovery of Family Allowance payments.

Subsection 3.—Corporation Income Tax Statistics

In the following tables, corporation statistics are presented on a taxation-year basis prior to assessment. The data has been extracted and compiled from the returns shortly after they have been filed and are as declared by the taxpayer without the scrutiny or revision of the Department of National Revenue. Provincial figures contain an unavoidable bias in favour of Ontario and Quebec, which is caused by the fact that many large companies which operate across Canada file their returns in either of these two provinces.

6.—Summary Statistics for Corporations Reporting a Profit, Taxation Year 1945

Item	Companies Reporting	Net Taxable Income	Income Tax Declared	Excess Profits Tax Declared	Refundable Portion
	No.	$	$	$	$
Companies Taxable under the Income War Tax Act					
Active Companies—					
Full tabulated—established	18,734	1,124,345,000	200,304,000	437,280,000	65,102,000
Fully tabulated—newly incorporated	1,331	10,003,000	1,802,000	2,336,000	69,000
Not fully tabulated—established	796	59,898,000	10,084,000	20,790,000	2,301,000
Not fully tabulated—newly incorporated	30	177,000	32,000	37,000	–
Not fully tabulated—filing interim returns	60	1,480,000	266,000	336,000	10,000
Total Active Taxable Companies	20,951	1,195,903,000	212,488,000	460,779,000	67,482,000
Inactive taxable companies	380	90,000	16,000	12,000	–
Exempt companies	1,396	3,000	9,000	–	–
Grand Total—Taxable and Exempt	**22,727**	**1,195,996,000**	**212,513,000**	**460,791,000**	**67,482,000**

7.—Distribution of Active Taxable Companies Reporting a Profit, by Income Classes, Industrial Divisions, and Provinces, Taxation Year 1945

Class or Province	Companies Reporting	Net Taxable Income	Income Tax Declared	Excess Profits Tax Declared	Refundable Portion
	No.	$	$	$	$
Income Class					
Under $1,000	3,380	1,395,000	250,000	198,000	–
$ 1,000 to $ 2,000	2,126	3,005,000	540,000	457,000	–
$ 2,000 to $ 3,000	1,628	3,925,000	705,000	645,000	1,000
$ 3,000 to $ 4,000	1,400	4,775,000	858,000	848,000	1,000
$ 4,000 to $ 5,000	1,343	5,986,000	1,077,000	1,099,000	1,000
$ 5,000 to $ 10,000	3,438	23,862,000	4,289,000	6,477,000	433,000
$ 10,000 to $ 15,000	1,601	19,454,000	3,496,000	6,836,000	867,000
$ 15,000 to $ 20,000	972	16,902,000	3,034,000	6,278,000	865,000
$ 20,000 to $ 25,000	657	14,548,000	2,613,000	5,498,000	788,000
$ 25,000 to $ 50,000	1,664	58,494,000	10,489,000	23,238,000	3,537,000
$ 50,000 to $ 100,000	1,149	80,165,000	14,344,000	33,066,000	5,318,000
$ 100,000 to $ 250,000	854	133,969,000	23,928,000	57,868,000	9,620,000
$ 250,000 to $ 500,000	364	127,633,000	22,891,000	55,785,000	9,292,000
$ 500,000 to $1,000,000	203	139,091,000	24,546,000	57,684,000	9,310,000
$1,000,000 to $5,000,000	150	310,253,000	55,011,000	119,507,000	17,471,000
$5,000,000 or over	22	252,446,000	44,417,000	85,295,000	9,978,000
Totals	**20,951**	**1,195,903.000**	**212,488,000**	**460,779,000**	**67,482,000**
Industrial Division					
Agriculture, fishing and forestry	345	4,663,000	840,000	1,674,000	222,000
Mining	315	81,795,000	14,397,000	21,554,000	1,263,000
Manufacturing	6,426	626,975,000	111,476,000	248,860,000	37,651,000
Construction	667	9,494,000	1,724,000	3,144,000	359,000
Public utilities	1,081	148,276,000	26,676,000	51,093,000	6,220,000
Wholesale trade	3,091	91,368,000	16,297,000	41,035,000	6,918,000
Retail trade	3,924	118,829,000	21,692,000	59,103,000	11,172,000
Service	2,228	31,794,000	5,715,000	12,342,000	1,830,000
Finance	2,817	82,211,000	13,581,000	21,761,000	1,811,000
Unclassified	57	498,000	90,000	213,000	36,000
Province					
Prince Edward Island	147	3,364,000	606,000	728,000	138,000
Nova Scotia	857	23,543,000	4,243,000	10,405,000	1,770,000
New Brunswick	578	19,052,000	3,430,000	8,313,000	1,392,000
Quebec	5,301	411,039,000	72,989,000	154,025,000	21,497,000
Ontario	7,528	536,862,000	95,033,000	198,890,000	27,581,000
Manitoba	1,390	59,385,000	10,666,000	28,337,000	5,157,000
Saskatchewan	699	9,051,000	1,629,000	4,145,000	734,000
Alberta	1,218	29,169,000	5,252,000	12,913,000	2,194,000
British Columbia	3,233	104,438,000	18,640,000	43,023,000	7,019,000

Section 2.—Gasoline Taxes

The provincial gasoline taxes can be termed "direct taxes" only because the consumer knows exactly the amount of tax he is paying when purchasing gasoline. These taxes have been brought together in this Section on account of the large number of Canadian motorists who are directly affected, while the non-motoring portion of the population is affected by the effect of higher gasoline taxes on delivery costs and bus transportation.

The Dominion Government, in the Third War Budget of Apr. 29, 1941, imposed a tax of 3 cents per gallon on gasoline. Proceeds from this tax are given in Table **6**, p. 955. The tax was repealed as of Apr. 1, 1947.

The present provincial rates of gasoline tax, per gallon, are: Prince Edward Island, 10 cents; Nova Scotia, 10 cents; New Brunswick, 10 cents; Quebec, 8 cents; Ontario, 8 cents; Manitoba, 7 cents; Saskatchewan, 8 cents; Alberta, 7 cents; British Columbia, 7 cents; Yukon, 3 cents.

There are certain refunds and exemptions allowed by the various taxing authorities and these are set out in the Bureau's publication "The Motor Vehicle in Canada".*

8.—Provincial Government Receipts from Gasoline Taxes, Respective Fiscal Years Ended in 1935-45[1]

NOTE.—For statistics of gallonage on which these taxes are levied, see p. 689. For periods covered by fiscal years, see headnote to Table **9**, p. 1008. Figures for 1923-34 are given at p. 978 of the 1945 Year Book. Receipts from the gasoline tax in Yukon, which became effective June 15, 1940, amounted to $4,341 in 1941, $19,562 in 1942, $28,981 in 1943, $26,540 in 1944 and $24,319 in 1945.

Year	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	$	$	$	$	$	$	$	$	$
1935....	179,873	1,794,133[2]	1,022,607	5,115,439	4,788,664[3]	1,834,584	1,498,843	1,945,261	2,264,197
1936....	201,169	1,735,965	1,175,332	5,790,624	15,021,994	1,854,906	1,749,059	2,220,907	2,530,156
1937....	270,470	2,006,489	1,477,645	6,565,051	15,761,877	2,015,129	2,097,792	2,455,397	2,719,711
1938....	285,505	2,424,355	1,846,766	7,347,410	17,644,164	2,316,214	1,995,045	2,610,211	3,162,978
1939....	316,440	2,608,189	1,921,060	7,882,718	18,503,789	2,536,838	1,876,379	2,953,128	3,284,485
1940....	301,186	2,875,400	2,120,971	10,783,953	25,105,359	2,789,088	2,999,951	3,096,644	3,454,834
1940[1],[4]..	307,902	2,853,364	2,101,072	11,803,248	26,608,291	2,678,149	3,397,279	3,221,976	3,763,626
1941....	285,060	3,031,449	2,034,940	12,141,969	27,641,457	2,776,321	3,757,558	4,212,305	4,005,947
1942....	351,579	2,893,101	2,081,277	11,506,921	26,608,291	2,678,149	3,397,280	3,524,625	3,763,626
1943....	325,988	2,868,278	2,101,073	11,803,248	26,608,291	2,678,149	3,397,279	3,645,895	3,763,626
1944....	309,752	3,446,021	2,122,312	12,388,342	26,608,291	2,678,149	3,397,280	3,808,155	3,763,626
1945....	364,663	2,906,639	2,101,072	11,461,400	26,608,291	2,681,556	4,390,333	4,463,196	4,330,543

[1] Figures below the rule are for the fiscal years ended nearest to Dec. 31 of the year stated. [2] Fourteen months. [3] Five months. [4] Actual net receipts for fiscal years ended nearest Dec. 31, 1940. Provincial gasoline tax revenues of subsequent years are guaranteed at this level by the Federal Government (6 Geo. VI, c. 13).

Section 3.—Succession Duties†

The first imposition of succession duties in Canada was in 1892, when Nova Scotia, New Brunswick, Quebec and Ontario enacted legislation of this nature. Legislation was passed in the other provinces on the following dates: Manitoba, 1893; Prince Edward Island and British Columbia, 1894; Saskatchewan and Alberta, 1905.

Succession duties have grown to be an important if fluctuating part of provincial revenues and Table **9** shows the receipts from this source from 1921.

The outstanding development in the succession-duty field since the publication of the 1946 Year Book has been the withdrawal of seven provinces from this field as part of general agreements for the removal of duplication of direct taxation, negotiated with the Dominion. These agreements succeed the expiring Wartime Tax Agreements, and follow the general terms of the offer set out in the Budget Speech of June 27, 1946. This offer was drawn up in such terms that any province could elect either to enter or not to enter into an agreement with the Dominion and, in respect of succession duties, provided that even a province that did enter into an agreement could, if it wished, retain its own levies. As of the end of September, 1947, seven of the nine provinces, namely, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia, had agreed to this offer and had elected to repeal their own succession duties for the period from Apr. 1, 1947, to Mar. 31, 1952. For this period, therefore, provincial succession duties will be limited to those provinces which have not accepted the Dominion's offer before the period expires.

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* Obtainable from the Dominion Statistician, Ottawa, price 25 cents.

† Revised under the direction of Dr. A. K. Eaton, Director, Taxation Division, Department of Finance, Ottawa.

In anticipation of the withdrawal of several of the provinces from the field, the Federal Government had provided in the 1946 Budget that, as from Jan. 1, 1947, the rates of Dominion duty would be doubled, and that where a provincial levy was continued a credit would be allowed against one-half of the Dominion duty for duty paid to a province. The existing situation, therefore, is that in provinces that have withdrawn their duties the previous combination of Dominion and provincial rates has been supplemented by a single Dominion duty at double the previous Dominion level, which in most cases results in the continuation of a total duty approximately the same as previously levied under the two duties combined. On the other hand, in the provinces that have not withdrawn their duties, the doubled rates of Dominion duty apply but may be reduced up to one-half by a credit for the duty paid to the province.

The Dominion Succession Duty Act was enacted as c. 14 of the session of 1940-41. Certain amendments were made to the Act by c. 25 of 1942; c. 37 of 1944, c. 18 of 1945, and the doubling of rates and provision of the tax credit mentioned above by c. 46 of the Statutes of 1946.

Revenue from the Dominion duty is given in Table 9.

A common feature of both Dominion and provincial duties is the variation of rates by the degree of relationship of the beneficiary to the deceased. The four classes of beneficiaries that are established under Dominion law (see p. 1008) have, for example, specific rates that change with each classification, while in Ontario there are three classes of beneficiary with different rates of duty attached to each class. It is also a common feature of both Dominion and provincial Acts for an initial rate of duty to be charged based on the total value of the estate and an additional rate based on the bequest received by each individual. Thus, in the case of the Dominion, a person who receives a bequest of $50,000, say, out of an estate of $500,000 is charged the rate for a $500,000 estate plus an additional rate for $50,000, and the total rate is then applied in calculating the tax on his bequest of $50,000.

Double taxation of estates resulting from taxation of the same property by more than one province has been common in the past, but the withdrawal of seven of the provinces from the field will considerably reduce this problem. In the international field, dual taxation has been dealt with by way of tax conventions. Such a tax convention between the Dominion and the United States was signed on June 8, 1944. One of the terms of this convention is that shares in a corporation organized in or under the laws of the United States or any of the individual States shall be deemed to be property situated within the United States, and shares in a corporation organized in or under the laws of Canada or of the provinces or territories of Canada shall be deemed to be property situated within Canada.

An agreement respecting succession duties between Canada and the United Kingdom was also signed June 5, 1946.

Under these circumstances, the difficulties of working out succession duty tables so as to show the combined effects of Dominion and provincial duties is realized. The best that can be done is to choose typical estates in the main classes laid down in the legislation and give a picture of the combined duties applicable in such cases. This has been attempted in the following series of tables in the hope that it will be useful in presenting to the student of this subject a general picture of the incidence of succession duties in Canada under conditions existing at present.

9.—Dominion and Provincial Receipts from Succession Duties, Respective Fiscal Years Ended in 1921-46

NOTE.—The fiscal years of the provinces end on the following dates: P.E.I., Dec. 31 to 1942 and thereafter Mar. 31; N.S., Sept. 30 prior to 1935 and Nov. 30 thereafter; N.B., Oct. 31; Que., June 30 to 1940 and Mar. 31 thereafter; Ont., Oct. 31 prior to 1935 and Mar. 31 thereafter; Man. and Sask., Apr. 30; Alta. and B.C., Mar. 31.

Year	Dominion	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	$	$	$	$	$	$	$	$	$	$
1921	-	10,569	158,972	151,326	2,100,456	4,821,811[1]	457,563	331,370[2]	177,415[3]	342,259
1922	-	20,592	120,740	241,753	3,005,293	6,523,245[1]	168,503	314,235[2]	128,185[3]	563,573
1923	-	9,165	222,679	152,609	2,620,337	3,858,260	290,850[4]	280,985	164,087	682,919
1924	-	6,088	135,846	163,123	2,977,850	4,175,198	455,808	489,082	189,808	772,712
1925	-	15,289	258,408	290,530	2,423,149	5,786,893	592,257[4]	287,698	459,659	708,880
1926	-	18,788	536,635	293,775	2,257,277	8,761,863	422,199	337,354	253,611	565,017
1927	-	8,587	188,385	461,386	3,653,898[3]	9,468,950	757,489	295,192	471,859	701,737
1928	-	17,122	221,637	413,797	3,740,630[3]	4,667,958	606,576	368,800	115,095[5]	758,136
1929	-	29,325	290,457	319,600	4,183.577[3]	6,610,382	732,697	410,626	383,102	735,990
1930	-	25,946	311,720	198,982	5,268,089[3]	11,229,439	1,033,564	468,893	897,302	836,637
1931	-	11,640	256,415	293,941	6,916,637[3]	9,504,814	452,023	323,007	552,767	558,790
1932	-	35,453	515,086	190,558	3,798,795	6,136,624	346,952	199,094	258,098	410,720
1933	-	30,713	262,925	208,586	3,070,138	8,081,322	267,078	177,376	470,741	535,808
1934	-	50,452	298,337	245,542	2,697,771	6,515,071	423,416	148,944	256,850	382,650
1935	-	19,839	462,733[6]	415,040	3,401,574	3,469,467[7]	340,214	223,211	292,701	979,401
1936	-	42,811	566,856	618,985	4,697,618	11,984,720	375,045	324,328	270,901	1,067,101
1937	-	45,380	606,367	398,103	7,636,875	15,991,351	463,963	311,019	342,841	825,047
1938	-	67,782	745,997	318.947	11,837,572	20,214,183	403,878	240,809	1,326,346	1,261,091
1939	-	75,312	557,221	177,276	12,277,427	15,314,854	605,426	375,585	372,169	703,780
1940	-	44,036	550,057	526,050	12,404,322	11,500,282	875,449	352,427	374,996	1,161,975
1941	-	42,662	409,632	383,425[8]	5,014,773[8]	11,172,484	603,328	261,849	415,156	888,860
1941[9]	6,956,574[10]	42,662	409,632	383,425	12,201,557	11,676,453	737,393	345,918	673,058	760,768
1942	13,273,483	56,767	688,427	221,909	12,075,952[3]	11,636,058	538,698	405,710	458,702	818,321
1943	15,019,830	46,143	662,188	599,877	6,796,154[3]	13,320,867	341,223	480,684	686,456	1,449,789
1944	17,250,798	82,120[11]	508,718	364,778	6,504,608[3]	12,783,119	334,886	501,070	902,519[3]	1,870,507
1945	21,447,573	108,893	881,586	677,485	5,381,806[3]	12,524,929	649,680	648,154	1,132,131[3]	1,723,092
1946	23,576,071	92,617	667,364	1,072,414	6,298,837	14,500,000	767,275	[12]	855,424	2,918,920

[1] Includes "Funds in lieu of Succession Duties". [2] Includes "Succession Duties Act" fees. [3] Revised since the publication of the 1946 Year Book. [4] Eight months. [5] Three months. [6] Fourteen months. [7] Five months. [8] Nine months. [9] Figures below the rule are for fiscal years ended nearest to Dec. 31 of year stated; due to changes in the provincial fiscal years, figures are given in several cases for broken periods. [10] Ten months; Act came into force June 14, 1941. [11] Fifteen months. [12] Not available.

Dominion Duty.—Beneficiaries are divided into four classes, as follows:—

(1) Widow or dependent child or dependent grandchild.

(2) Husband; parent; grandparent; child over 18 years of age, not infirm; son- or daughter-in-law.

(3) Lineal ancestor other than parent or grandparent; brother, sister or their descendant; uncle or aunt or their descendant.

(4) Others.

No duty is payable on estates not exceeding $5,000 or on bequests up to $1,000 to any one individual, nor is duty levied on gifts to the Dominion or provinces, on residential property of certain diplomatic or consular officials, on pensions administered by the Canadian Pensions Commission or those payable by Allied Nations for war services nor on insurance moneys or annuities if the assured or person with whom contract was made was domiciled outside of Canada at the time of death. Provision is made for increased exemptions and reduced duties in the case of those dying as a result of war service and bequests to non-profit charitable organizations in Canada are exempt up to 50 p.c. of the aggregate net value of the estate.

Widows are exempt up to $20,000, dependent children $5,000 each and, in cases where dependent children do not benefit, the widow's exemption is increased by $5,000 for each child who does not benefit. In the case of dependent orphaned children, there is a further exemption of $15,000 (in addition to $5,000) divisible proportionately among such orphans according to the number of them and the value of each individual benefit. Duty is payable on the excess only when the limit is passed.

Gifts made during the lifetime are exempt if the transfer was carried out before Apr. 29, 1941, and the recipient of such gifts secured full possession at the time of the transfer and the donor (the deceased) thereafter did not retain any rights therein or secure any benefits therefrom.

If gift tax payable under the provisions of the Income War Tax Act has been paid in connection with the transfer made by a deceased person during his lifetime then no succession duty is payable in respect of such gift except to the extent that succession duty thereon is in excess of the gift tax.

Examples of the rates of duty and duty levied are given in Table **10.**

10.—The Incidence of Succession Duties in all Provinces (except Quebec and Ontario) on Typical Estates

Class	Aggregate Net Value	Dutiable Value	Rate	Duty
	$	$	p.c.	$
A. Widow only	20,000	Nil	–	–
	25,000	5,000	4·90	245
	50,000	30,000	9·80	2,940
	100,000	80,000	14·70	11,760
	300,000	280,000	26·70	74,760
	500,000	480,000	32·70	156,960
	1,000,000	980,000	38·70	379,260
B. Only child over 18 years	20,000	20,000	5·60	1,120
	25,000	25,000	5·80	1,450
	50,000	50,000	10·80	5,400
	100,000	100,000	16·70	16,700
	300,000	300,000	28·70	86,100
	500,000	500,000	34·70	173,500
	1,000,000	1,000,000	40·70	407,000
C. Brother or sister	20,000	20,000	6·60	1,320
	25,000	25,000	6·80	1,700
	50,000	50,000	12·70	6,350
	100,000	100,000	18·70	18,700
	300,000	300,000	30·70	92,100
	500,000	500,000	36·70	183,500
	1,000,000	1,000,000	42·70	427,000
D. Stranger	20,000	20,000	7·60	1,520
	25,000	25,000	7·80	1,950
	50,000	50,000	14·70	7,350
	100,000	100,000	20·70	20,700
	300,000	300,000	32·70	98,100
	500,000	500,000	38·70	193,500
	1,000,000	1,000,000	44·70	447,000

The Incidence of Combined Dominion and Provincial Succession Duties.—Under the new tax agreements outlined at p. 969, only the Provinces of Quebec and Ontario, which have not entered the agreement, have retained their own levies on succession duties. As mentioned above, the other seven provinces have elected to repeal their succession duties for the period from Apr. 1, 1947, to Mar. 31, 1952. As a consequence, the tables showing combined rates of Dominion and provincial duty for each province, which appeared at pp. 942-950 of the 1946 Year Book, have been dropped with the exception of those for the two above-mentioned provinces. The new condition of doubled Dominion duties and a tax credit up to 50 p.c. for the provincial duty has been taken into account in Tables **11** and **12**. The rates under the heading "Dominion Duty" shown in the 1946 Year Book have been doubled and under "Combined Duty" the greater of (1) the amount of the Dominion duty (doubled rates), or (2) the provincial duty plus one-half the Dominion duty, is given.

In these two tables, the beneficiaries under all the classes show the duties collectable where the estate of given value is left to one beneficiary only, since it would be impossible to cover the many different classifications, exemptions and saving clauses to be found in the legislation of the respective provinces. In every case the estate is assumed to be wholly situated within the province and the beneficiary domiciled therein to be the sole heir. The reader is referred to the legislation and to the taxing authority shown under each provincial heading for more complete information.

Quebec.—The current legislation under which succession duties are collected is c. 18 of 1943. As stated at p. 1008, the following text and table can give only a broad outline of such duties as applied to comparable classes of beneficiaries in other Provinces. Full details regarding other cases may be obtained from the Act quoted or from the Collector of Succession Duties, Provincial Revenue Offices, Quebec.

Under the legislation, beneficiaries are divided into three classes, as follows:—

(1) Those in direct ascending or descending line between consort, between father- or mother-in-law, and son- and daughter-in-law, between step-father or step-mother and step-son and step-daughter. There is no limitation of degree in the direct ascending or descending line between these relationships.

(2) Those in collateral line including a brother or sister, or descendant of a brother or sister of the deceased, or to a brother or sister, or son or daughter of a brother or sister, of the father or mother of the deceased.

(3) Others.

No duty is payable when the aggregate value of the property passing to persons in Class (1) does not exceed $10,000. This sum is increased by $1,000 for each child who has survived or has left surviving descendants. No duty is payable on bequests up to $1,000 to beneficiaries in Class (3) who have been in the employ of the testator for five years or more. No duty is payable on legacies for religious, charitable or educational purposes in Quebec and the same privilege is extended to legacies for similar work outside the Province, provided that the Province or State within which the work is to be carried out extends reciprocal privileges under its succession duty laws.

11.—The Incidence of Dominion and Quebec Succession Duties on Typical Estates

Class	Aggregate Net Value	Dominion Duty[1]			Provincial Duty			Combined Duties[1]
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	$	$	p.c.	$	$	p.c.	$	$
A. Widow only........	20,000	Nil	–	–	20,000	2·80	560	560
	25,000	5,000	4·90	245	25,000	3·00	750	872
	50,000	30,000	9·80	2,940	50,000	4·00	2,000	3,470
	100,000	80,000	14·70	11,760	100,000	8·00	8,000	13,880
	300,000	280,000	26·70	74,760	300,000	12·00	36,000	74,760
	500,000	480,000	32·70	156,960	500,000	15·50	77,500	156,960
	1,000,000	980,000	38·70	379,260	1,000,000	23·00	230,000	419,630
B. Only child over 18 years.	20,000	20,000	5·60	1,120	20,000	2·80	560	1,120
	25,000	25,000	5·80	1,450	25,000	3·00	750	1,475
	50,000	50,000	10·80	5,400	50,000	4·00	2,000	5,400
	100,000	100,000	16·70	16,700	100,000	8·00	8,000	16,700
	300,000	300,000	28·70	86,100	300,000	12·00	36,000	86,100
	500,000	500,000	34·70	173,500	500,000	15·50	77,500	173,500
	1,000,000	1,000,000	40·70	407,000	1,000,000	23·00	230,000	433,500
C. Brother or sister....	20,000	20,000	6·60	1,320	20,000	7·80	1,560	2,220
	25,000	25,000	6·80	1,700	25,000	8·50	2,125	2,975
	50,000	50,000	12·70	6,350	50,000	12·00	6,000	9,175
	100,000	100,000	18·70	18,700	100,000	16·00	16,000	25,350
	300,000	300,000	30·70	92,100	300,000	19·00	57,000	103,050
	500,000	500,000	36·70	183,500	500,000	21·67	108,350	200,100
	1,000,000	1,000,000	42·70	427,000	1,000,000	28·33	283,300	496,800
D. Stranger...........	20,000	20,000	7·60	1,520	20,000	14·00	2,800	3,560
	25,000	25,000	7·80	1,950	25,000	14·50	3,625	4,600
	50,000	50,000	14·70	7,350	50,000	17·00	8,500	12,175
	100,000	100,000	20·70	20,700	100,000	22·00	22,000	32,350
	300,000	300,000	32·70	98,100	300,000	25·75	77,250	126,300
	500,000	500,000	38·70	193,500	500,000	28·25	142,250	239,000
	1,000,000	1,000,000	44·70	447,000	1,000,000	34·50	345,000	568,500

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[1] See text on p. 1007 for change in legislation passed in 1946.

12.—The Incidence of Dominion and Ontario Succession Duties on Typical Estates

Class	Aggregate Net Value	Dominion Duty[1]			Provincial Duty			Combined Duties[1]
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	$	$	p.c.	$	$	p.c.	$	$
A. Widow only	20,000	Nil	-	-	Nil	-	-	-
	25,000	5,000	4·90	245	"	-	-	245
	50,000	30,000	9·80	2,940	50,000	2·50	1,250[2]	2,940
	100,000	80,000	14·70	11,760	100,000	7·50	7,500[2]	13,380[3]
	300,000	280,000	26·70	74,760	300,000	10·00	30,000[2]	74,760
	500,000	480,000	32·70	156,960	500,000	12·50	62,500[2]	156,960
	1,000,000	980,000	38·70	379,260	1,000,000	18·00	180,000[2]	379,260
B. Only child over 18 years.	20,000	20,000	5·60	1,120	Nil	-	-	1,120
	25,000	25,000	5·80	1,450	"	-	-	1,450
	50,000	50,000	10·80	5,400	50,000	2·50	1,250[2]	5,400
	100,000	100,000	16·70	16,700	100,000	7·50	7,500[2]	16,700
	300,000	300,000	28·70	86,100	300,000	10·00	30,000[2]	86,100
	500,000	500,000	34·70	173,500	500,000	12·50	62,500[2]	173,500
	1,000,000	1,000,000	40·70	407,000	1,000,000	18·00	180,000[2]	407,000
C. Brother or sister	20,000	20,000	6·60	1,320	20,000	8·60	1,720[4]	2,380[3]
	25,000	25,000	6·80	1,700	25,000	9·15	2,287[4]	3,137[3]
	50,000	50,000	12·70	6,350	50,000	11·90	5,950[4]	9,125[3]
	100,000	100,000	18·70	18,700	100,000	15·20	15,200[4]	24,550[3]
	300,000	300,000	30·70	92,100	300,000	18·00	54,000[4]	100,050[3]
	500,000	500,000	36·70	183,500	500,000	20·50	102,500[4]	194,250[3]
	1,000,000	1,000,000	42·70	427,000	1,000,000	26·00	260,000[4]	473,500[3]
D. Stranger	20,000	20,000	7·60	1,520	20,000	13·10	2,620[5]	3,380[3]
	25,000	25,000	7·80	1,950	25,000	13·40	3,350[5]	4,325[3]
	50,000	50,000	14·70	7,350	50,000	15·00	7,500[5]	11,175[3]
	100,000	100,000	20·70	20,700	100,000	17·50	17,500[5]	27,850[3]
	300,000	300,000	32·70	98,100	300,000	22·50	67,500[5]	116,550[3]
	500,000	500,000	38·70	193,500	500,000	27·50	137,500[5]	234,250[3]
	1,000,000	1,000,000	44·70	447,000	1,000,000	35·00	350,000[5]	573,500[3]

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[1] See text on p. 1007 for change in legislation passed in 1946. [2] Plus a surtax of 15 p.c. [3] Plus surtax on provincial duty. [4] Plus a surtax of 20 p.c. [5] Plus a surtax of 25 p.c.

Ontario.—The current legislation on succession duties is c. 1 of 1939 (Second Session) as amended, and full information may be obtained on application to the Succession Duty Office, Treasury Department, Parliament Buildings, Toronto.

Beneficiaries are divided into three classes, as follows:—

(1) Widow; child; husband; parent; grandparent; grandchild; son- or daughter-in-law.

(2) Brother; sister; nephew; niece; uncle; aunt, cousin; child of nephew or niece.

(3) Others.

No duty is payable on estates not exceeding $5,000 in aggregate value, nor on estates not exceeding $25,000 devised to persons in Class (1), nor on those not exceeding $10,000 devised to persons in Class (2). Where the aggregate value of an estate does not exceed $25,000 the shares in such an estate passing to beneficiaries in Class (1) are exempt from duty. The same rule applies to shares of beneficiaries in Class (2) where the aggregate value does not exceed $10,000. Where the aggregate value does not exceed $5,000, the estate will be exempt from duty regardless of what class or classes of persons inherit.

Where any person in Class (3) was in the employ of the deceased for at least five years immediately prior to his death, no duty shall be payable with respect to any benefits which such person derived from the deceased where the total value of such benefits is not in excess of $1,000. Such benefits however, while exempt, are nevertheless taken in as a factor in fixing the rates applicable to the dutiable portions of the estate.

Bequests for religious, charitable or educational purposes to any religious charitable or educational organization which carries on its work solely in Ontario are exempt from duty and are altogether ignored in the computation of duty on the portions of the estate which are not exempt. The same rule applies to the Canadian National Institute for the Blind, the Canadian Red Cross Society and other approved patriotic organizations.

CHAPTER XXVI.—CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE

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In this Chapter are assembled the statistics regarding financial institutions and transactions, other than those pertaining to insurance: the latter are dealt with separately in Chapter XXVII.

PART I.—CURRENCY AND BANKING

Section 1.—Historical Sketch

At pp. 900-905, inclusive, of the 1938 Year Book there appears a historical sketch of currency and banking in Canada, tracing certain features of the central banking system that finally led up to the establishment of the Bank of Canada. In chronological order these were:—

(1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.

(2) *The Canadian Bankers' Association*, established in 1900 and designed to effect greater co-operation among the banks in the issue of notes, in credit control and in various aspects of bank activities.

(3) *The Central Gold Reserves*, established by the Bank Act of 1913.

(4) *Rediscount Facilities*, although originated as a war measure by the Finance Act of 1914, were made a permanent feature of the system by the Finance Act of 1923, which empowered the Minister of Finance to issue Dominion notes to the banks on the deposit by them of approved securities. This legislation provided the banks with a means of increasing their legal tender cash reserves at will.

Section 2.—The Bank of Canada

Subsection 1.—The Bank of Canada Act and Its Amendments

The Bank of Canada was incorporated in 1934 and commenced operations on Mar. 11, 1935. An account of the capital structure of the Bank and its transition from a privately owned institution to a wholly government-owned one is given at p. 800 of the 1941 Year Book.

The Bank is authorized to pay cumulative dividends of 4½ p.c. per annum from its profits after making such provision as the Board thinks proper for bad and doubtful debts, depreciation in assets, pension funds, and all such matters as are properly provided for by banks. The remainder of the profits will be paid into the Consolidated Revenue Fund of Canada and to the Rest Fund of the Bank in specified proportions until the Rest Fund is equal to the paid-up capital, when all the remaining profits will be paid into the Consolidated Revenue Fund.

The Bank may buy and sell securities of the Dominion and the provinces without restriction if of a maturity not exceeding two years, and in limited amounts if of longer maturity; short-term securities of the Dominion or provinces may be rediscounted. It may also buy and sell short-term securities of British Dominions, the United States or France without restriction, if maturing within six months, and such securities having a maturity exceeding six months in limited amounts. The Bank may buy and sell certain classes of commercial paper of limited currency, and, if endorsed by a chartered bank, may rediscount such commercial paper. Advances for six-month periods may be made to chartered banks, Quebec Savings Banks, the Dominion or any province against certain classes of collateral, and advances of specified duration may be made to the Dominion or any province in amounts not exceeding a fixed proportion of such government's revenue. The Bank may accept from the Federal or Provincial Governments, or from any chartered bank or any bank incorporated under the Quebec Savings Banks' Act, deposits that shall not bear interest. The Bank may buy and sell gold, silver, nickel and bronze coin, and gold and silver bullion, and may deal in foreign exchange.

The provisions regarding the note issue of the Bank of Canada are dealt with at p. 1020.

The Bank of Canada Act (c. 43, Statutes of 1934 and amendments) provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada. Under the terms of the Exchange Fund Order, 1940, authorizing the transfer of the Bank's gold holdings to the Foreign Exchange Control Board, the minimum gold reserve requirement has been temporarily suspended; this suspension was continued under the Foreign Exchange Control Act, 1946. The reserve, in addition to gold, may include silver bullion; balances in pounds sterling in the Bank of England, in United States dollars in the Federal Reserve Bank of New York, and in gold currencies in central banks in gold-standard countries or in the Bank for International Settlements; treasury bills of the United Kingdom or the United States of America having a maturity not exceeding three months; and bills of exchange having a maturity not exceeding 90 days, payable in London or New York, or in a gold-standard country, less any liabilities of the Bank payable in the currency of the United Kingdom, the United States of America or a gold-standard country. In accordance with the terms of the Foreign Exchange Acquisition Order, 1940, the Bank of Canada sold foreign exchange with a Canadian dollar value of $27,734,444 to the Foreign Exchange Control Board.

The chartered banks are required to maintain a reserve of not less than 5 p.c of their deposit liabilities, payable in Canadian dollars, in the form of deposits with and notes of the Bank of Canada.

The Bank acts as the fiscal agent of the Dominion of Canada without charge and may, by agreement, act as banker or fiscal agent of any province. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

The head office of the Bank is at Ottawa, and it has an agency in each province namely, at Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary and Vancouver.

The Governor of the Bank is its chief executive officer and Chairman of the Board of Directors; he is assisted by a Deputy Governor and an Assistant Deputy Governor. The first appointments were made by the Government. Subsequent appointments are to be made by the Board of Directors subject to the approval of the Governor in Council.

At the first meeting of the shareholders on Jan. 23, 1935, seven directors were elected with terms as follows: one director, until the third annual general meeting (1938); two, until the fourth (1939); two, until the fifth (1940); and two, until the six annual general meeting (1941). Former directors continued in office when the Government took over the management of the Bank but directors are now appointed by the Minister of Finance with the approval of the Governor in Council for terms of three years. There are now eleven directors. In the transaction of the business of the Bank, each director has one vote.

There is also an Executive Committee of the Board of Directors consisting of the Governor, Deputy Governor and one member of the Board, which must meet once a week. This Committee has the same powers as the Board but every decision is submitted to the Board of Directors at its next meeting. The Board must meet at least four times a year. The Deputy Minister of Finance is an ex-officio member of the Board of Directors and of the Executive Committee, but is without vote.

The Governor alone, or in his absence the Deputy Governor, has the power to veto any action or decision of the Board of Directors or the Executive Committee, subject to confirmation or disallowance by the Governor in Council.

Subsection 2.—The Bank of Canada and Its Relationship to the Canadian Financial System

An article under this title is given at pp. 881-885 of the 1937 edition of the Year Book. It deals with such subjects as the functions of the Bank, its control and regulation of credit and currency, the mechanism by which such control is exercised, the expansion and contraction of credit, the mitigation of general economic fluctuations, the control of exchange operations, the advisory function of the Bank, and its duties as the Government's banker. An article on the wartime functions of a central bank appears at pp. 803-806 of the 1942 Year Book.

Subsection 3.—Bank of Canada Operations

The expansion of Bank of Canada liabilities and assets has provided for increased Bank of Canada notes in active circulation (as the chartered bank-note issue is limited and is gradually being retired) and has enlarged the cash reserves of the chartered banks. The principal changes in Bank of Canada assets since

April, 1938, have been the rise in investments, partly to replace the gold and foreign-exchange holdings transferred to the Foreign Exchange Control Board under the terms of the Exchange Fund Order and Foreign Exchange Acquisition Order, dated Apr. 30, 1940, and the fluctuations in holdings of sterling exchange through which the Bank has temporarily financed Canadian dollar requirements of the Foreign Exchange Control Board.

1.—Liabilities and Assets of the Bank of Canada, Mar. 13, 1935, and Dec. 31, 1944-46

(From the Annual Statements of the Bank of Canada)

Item	Mar. 13, 1935	Dec. 31, 1944	Dec. 31, 1945	Dec. 31, 1946
Liabilities	$	$	$	$
Capital paid up	4,991,640	5,000,000	5,000,000	5,000,000
Rest fund	Nil	10,050,367	10,050,367	10,050,367
Notes in circulation	97,805,665	1,035,972,607	1,129,099,247	1,186,201,681
Deposits—				
Federal Government	*4,212,200*	*30,996,574*	*175,838,826*	*81,468,167*
Chartered banks	*151,927,628*	*401,723,907*	*521,209,383*	*565,469,559*
Other	*277,922*	*27,683,100*	*29,770,378*	*93,800,975*
Totals, Deposits	156,417,750	460,403,581	726,818,587	740,738,701
Liabilities payable in sterling, United States and foreign gold currencies	[1]	172,257,273	156,829,962	960,131
Dividends declared	Nil	112,500	112,500	112,500
Other liabilities	99,702	3,589,769	3,975,966	5,552,901
Totals, Liabilities	**259,314,757**	**1,687,386,097**	**2,031,886,629**	**1,948,616,281**
Assets				
Reserves (at market values)—				
Gold coin and bullion	106,584,356	[2]	[2]	[2]
Silver bullion	986,363	Nil	Nil	Nil
Sterling and U.S.A. dollars	394,875	172,257,273	156,829,962	960,131
Totals, Reserves	107,965,594	172,257,273[2]	156,829,962[2]	960,131[2]
Subsidiary coin	297,335	247,351	339,157	345,465
Investments (at not exceeding market values)—				
Federal and Provincial Government short-term securities	*34,846,294*	*906,908,378*	*1,157,312,459*	*1,197,436,208*
Other Federal and Provincial Government securities	*115,013,637*	*573,917,491*	*688,270,178*	*708,164,801*
Other securities—at cost	[1]	*10,000,000*	*10,000,000*	*15,000,000*
Totals, Investments	149,859,931	1,490,825,869	1,855,582,637	1,920,601,009
Bank premises	Nil	1,817,950	1,884,018	2,438,215
All other assets	1,191,897	22,237,653	17,250,855	24,271,461
Totals, Assets	**259,314,757**	**1,687,386,096**	**2,031,886,629**	**1,948,616,281**

[1] Not shown prior to 1944. [2] The Exchange Fund Order, 1940, authorized the transfer of the Bank's gold holdings to the Foreign Exchange Control Board and temporarily suspended the requirement for a minimum gold reserve.

Subsection 4.—The Industrial Development Bank

The Industrial Development Bank was incorporated by Act of Parliament during 1944, commencing its banking operations on Nov. 1, 1944. This Bank was established to perform certain functions which the preamble to the Act of incorporation describes in the following terms:—

> "To promote the economic welfare of Canada by increasing the effectiveness of monetary action through ensuring the availability of credit to industrial enterprises which may reasonably be expected to prove successful if a high level of national income and employment is maintained, by supplementing the activities of other lenders and by providing capital assistance to industry with particular consideration to the financing problems of small enterprises."

The Industrial Development Bank is a subsidiary of the Bank of Canada. The Directors are the Directors and Assistant Deputy Governor of the Bank of Canada and the President is the Governor of the Bank of Canada. The $25,000,000 capital stock of the Bank of which $15,000,000 is now paid up, was subscribed by the Bank of Canada. The Industrial Development Bank may also raise funds by the issue of bonds and debentures provided that its total direct liabilities and contingent liabilities in the form of guarantees and underwriting agreements do not exceed three times the aggregate of the Bank's paid-up capital and Reserve Fund.

The lending powers of the Bank may be extended only to industrial enterprises in Canada with respect to which it is empowered to:—

(1) Lend money or guarantee loans.
(2) Enter into underwriting agreements with regard to any issue of stock, bonds or debentures.
(3) Acquire stock, bonds or debentures from the issuing corporation or any person with whom the Bank has entered into an underwriting agreement.

The Bank may accept any form of collateral security against its advances, including real property.

The Industrial Development Bank is intended to supplement the activities of other lending agencies rather than to compete with them and the Act of incorporation requires that it should extend credit only when the Board of Directors is of the opinion that similar credit would not be available elsewhere on reasonable terms and conditions. The Bank is specifically prohibited from engaging in the business of deposit banking.

Authorized and outstanding loans of the Industrial Development Bank as of Mar. 31, 1947, are classified by provinces, size of loan and industries in Table 2. The monthly statement of assets and liabilities of the Bank for June 30, 1947, showed outstanding loans and investments at that date of $9,861,673.

2.—Authorized And Outstanding Loans And Investments of the Industrial Development Bank, by Provinces, Size and Industries, as at Mar. 31, 1947

Province	Authorized	Outstanding
	$	$
Prince Edward Island	Nil	-
Nova Scotia	257,000	226,772
New Brunswick	412,993	248,000
Quebec	3,785,323	2,302,544
Ontario	7,817,293	3,102,637
Manitoba	615,403	499,632
Saskatchewan	217,819	119,866
Alberta	923,032	732,346
British Columbia[1]	1,340,879	306,712
Totals	**15,369,742**	**7,538,509**

Size of Loan	No.	Authorized
		$
$5,000 and under	30	99,502
$5,001 to $25,000	118	1,563,492
$25,001 to $50,000	47	1,712,726
$50,001 to $100,000	38	2,704,601
$100,001 to $200,000	25	3,689,421
$200,000 or over	9	5,600,000
Totals	**267**	**15,369,742**

Industry	Authorized	Outstanding
	$	$
Miscellaneous metal products	1,594,950	1,266,688
Foods and beverages	1,873,704	952,961
Agricultural and industrial machinery	1,247,417	738,882
Furniture and woodenware	1,345,348	735,984
Finished textile products	987,596	726,863
Refrigeration	1,249,777	537,855
Other	953,651	531,742
Builders' supplies	586,330	530,489
Automotive equipment	409,250	356,006
Chemical products	575,721	354,880
Pulp and paper products	3,348,500	246,500
Primary textiles	343,450	218,450
Primary lumber products	644,548	181,491
Ceramics, glass and plastic products	209,500	159,718
Totals	**15,369,742**	**7,538,509**

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[1] Includes Yukon and the Northwest Territories.

Section 3.—Currency

Subsection 1.—Canadian Coinage*

The present monetary standard of Canada is gold of 900 millesimal fineness (23·22 grains of pure gold equal to one gold dollar). Under the Uniform Currency Act of 1871, gold coin has been authorized but only very limited issues were ever made. Gold coins have not been struck since 1919. The British sovereign and half-sovereign, and United States eagle, half-eagle and double eagle are legal tender. Subsidiary coin consists of 50-, 25- and 10-cent silver pieces,† 800 fine (reduced from 925 fine in 1920). Such subsidiary silver coin is legal tender to the amount of ten dollars. The 5-cent piece is legal tender up to five dollars and the 1-cent bronze coin up to twenty-five cents. There is no provision for the redemption of subsidiary coin. A table at p. 807 of the 1941 Year Book gives particulars of weight, fineness, etc., of current coins.

3. Circulation of Canadian Coin as at Dec. 31, 1937-46

Note.—The figures are of net issues of coin. Figures for the years 1901-25 are given at p. 858 of the 1927-28 Year Book and for 1926-36 at p. 956 of the 1946 edition. Per capita figures are based on estimates of population as given at p. 100.

Year	Silver	Nickel	'Tombac'	Steel	Bronze	Total	Per Capita
	$	$	$	$	$	$	$
1937	29,387,857	2,899,361	-	-	3,003,286	35,290,504	3·20
1938	30,482,924	3,051,594	-	-	3,091,873	36,626,391	3·28
1939	32,236,145	3,355,906	-	-	3,276,771	38,868,822	3·45
1940	36,944,040	4,015,232	-	-	4,092,234	45,051,506	3·96
1941	40,339,221	4,467,463	-	-	4,648,567	49,455,251	4·30
1942	44,011,038	4,827,596	169,424	-	5,422,131	54,430,189	4·67
1943	51,009,046	4,826,033	1,407,424	-	6,300,627	63,543,130	5·38
1944	54,972,812	4,825,057	1,407,754	571,000	6,753,329	68,529,952	5·72
1945	58,327,590	4,823,237	1,407,462	1,521,170	7,499,263	73,578,722	6·07
1946	59,944,549	5,113,103	1,155,791	1,520,849	8,024,547	75,758,839	6·16

The Royal Canadian Mint.—The Ottawa Mint was established as a branch of the Royal Mint under the (Imperial) Coinage Act, 1870, and opened on Jan. 2, 1908. By 21-22 Geo. V, c. 48, it was constituted a branch of the Department of Finance, and by the Proclamation of Nov. 14, 1931, issued under Sect. 3 of that Act, it has, since Dec. 1, 1931, operated as the Royal Canadian Mint. At first the British North American Provinces, and later the Dominion of Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham, Ltd., England. In its earlier years the operations of the Mint in Canada were confined to the production of gold, silver and bronze coins for domestic circulation, of British sovereigns and of small coins struck under contract for Newfoundland and Jamaica. Previous to 1914, small quantities of gold bullion were refined, but during the War of 1914-18 the Mint came to the assistance of the British Government by establishing a refinery in which nearly twenty million ounces of South African gold were treated on account of the Bank of England. The subsequent great development of the gold-mining industry in Canada has resulted in gold-refining becoming one of the principal activities of the Mint. Most of the fine gold produced from the rough shipments from the mines is delivered to the Department of Finance (since Mar. 11, 1935, the Bank of Canada has acted as agent for the Government) in the form of bars of approximately 400 fine oz. each, the rest being sold in a convenient form to manufacturers. The fine silver extracted from the rough gold, when not required for coinage, is sold in New York or disposed of to local manufacturing firms.

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* Revised by the Royal Canadian Mint, Ottawa.

† The Currency Act of 1910 made provision for a silver dollar and a 5-cent silver coin. The former was not coined until 1935, when a limited issue was made as a jubilee coin. The 5-cent silver coin was coined freely until 1921. It still has limited legal tender but has been replaced in the coinage by the nickel 5-cent piece. In 1942 a new 5-cent piece was coined from 'tombac', a copper-zinc alloy, in order to conserve nickel for war purposes, and this coin was replaced in 1944 by a 5-cent coin composed of mild steel with a chromium finish.

An account of the organization and operational methods of the Royal Canadian Mint is given at pp. 888-892 of the 1940 Year Book.

4.—Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1937-46

NOTE.—Although not presented in exactly the same form, figures for 1901-16 are given at pp. 857-858 of the 1927-28 Year Book; for 1917-25 at p. 894 of the 1936 edition. Comparable figures to those shown below for 1926-36 are given at p. 957 of the 1946 edition.

Year	Gold Received	Gold Bullion Issued	Silver Coin Issued	Nickel Coin Issued	Steel Coin Issued	'Tombac' Coin Issued	Bronze Coin Issued
	fine oz.	fine oz.	$	$	$	$	$
1937	3,933,453	3,937,911	1,322,200	251,100	-	-	105,400
1938	4,398,258	4,308,067	1,376,000	153,500	-	-	184,300
1939	4,869,239	4,834,214	2,794,032	321,000	-	-	214,600
1940	4,990,847	5,026,793	4,845,000	660,500	-	-	822,800
1941	5,092,609	5,134,348	3,534,000	454,000	-	-	575,300
1942	4,611,982	4,611,892	3,764,000	361,576	-	169,424	783,500
1943	3,616,959	3,645,740	7,044,000	Nil	-	1,238,000	881,300
1944	2,862,048	2,829,755	4,006,000	"	571,000	400	454,600
1945	2,503,416	2,499,163	3,416,300	"	950,300	Nil	748,500
1946	2,652,245	2,665,964	1,701,000	291,500	-	"	528,500

Subsection 2.—Canadian Note Circulation

Dominion Notes.—Dominion notes became established in 1868 and the legislation by which the issue was expanded with the growth of the population is given at p. 952 of the 1934-35 Year Book. A summary of the main features of the former Dominion note issue is given at p. 893 of the 1940 edition.

Bank of Canada Notes.—The Bank of Canada, when it commenced operations, assumed the liability for Dominion notes outstanding, which were replaced in public circulation, and partly replaced as cash reserves, by its own legal-tender notes in denominations of $1, $2, $5, $10, $20, $50, $100 and $1,000. Deposits of chartered banks at the Bank of Canada completed the replacement of Dominion notes as cash reserves.

The chartered banks were required under the Bank Act of 1934 to reduce the issue of their own bank notes gradually during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced.

There has been little change in the circulation of denominations of notes under $5. In the denominations from $5 to $1,000, where Bank of Canada notes have partially replaced chartered bank notes or Dominion notes, there has been a large increase. On the other hand, the special Dominion notes in denominations from $1,000 to $50,000 which were used almost exclusively for inter-bank transactions or bank reserves, are no longer in use.

5.—Denominations of Dominion or Bank of Canada Notes in Circulation, 1926, 1929 and 1943-46

NOTE.—Annual averages of month-end figures. The totals outstanding are not always multiples of the denominations of notes because of adjustments made according to scale when parts of mutilated notes are turned in for cancellation.

Denomination	1926	1929	1943	1944	1945	1946
	$	$	$	$	$	$
Provincial......	27,624	27,621	27,574	27,573	27,574	27,574
Fractional......	1,330,663	1,380,710	1,094,531	1,093,666	1,093,051	1,092,522
$1........	17,732,100	20,032,308	37,143,601	38,740,526	40,577,111	41,241,696
$2........	12,925,212	14,609,088	28,067,218	29,159,772	31,024,976	31,889,923
$4........	33,397	32,138	28,873	28,842	28,838	28,831
Totals..........	32,048,996	36,081,865	66,361,797	69,050,379	72,751,550	74,280,546
$5........	626,179	730,101	93,116,558	98,942,174	102.603,827	102,390,902
$10........	Nil	Nil	333,974,557	381,050,750	403,777,675	391,899,105
$20........	"	"	163,509,117	222,345,129	266,684,012	280,872,417
$25........	"	"	43,892	47,215	43,977	47,073
$50........	650	650	37,087,287	54,382,062	75,590,344	89,303,404
$100........	Nil	Nil	62,557,508	99,845,808	137,953,983	168,910,387
$500........	1,875,917	1,811,875	533,750	480,792	457,917	402,875
$1,000........	3,799,250	4,168,917	16,231,250	17,398,500	19,024,083	17,779,166
Totals..........	6,301,996	6,711,543	707,053,919	874,492,430	1,006,135,818	1,051,605,329
Specials—						
$1,000......	671,333	407,667	1,000	1,000	1,000	1,000
$5,000.......	16,307,500	7,209,583	10,000	10,000	10,000	10,000
$50,000......	134,675,000	153,970,834	Nil	Nil	Nil	Nil
Totals, Specials.	151,653,833	161,588,084	11,000	11,000	11,000	11,000
Defunct Notes..	-	-	-	89,695[1]	89,660	89,406
Grand Totals..	**199,004,825**	**204,381,492**	**773,426,716**	**943,576,233**[1]	**1,078,988,028**	**1,125,986,281**

[1] Three-month average; not shown prior to October, 1944. The grand total is, however, a twelve-month average.

Chartered Bank Notes.—The developments by which bank notes became the chief circulating medium in Canada in the period preceding the establishment of the Bank of Canada are described at pp. 900-905 of the 1938 Year Book. The main steps of this development that remained as permanent features of the system are outlined at pp. 809-810 of the 1941 Year Book.

The provisions regarding bank notes were materially changed with the establishment of the Bank of Canada under the Bank Act (c. 30) of 1944. The authority for both seasonal expansion and additional issue secured by deposit in the Central Gold Reserves was then terminated. Provision was made for a gradual reduction in bank-note circulation over a period of years as explained at p. 1020. As a result of these changes, current data on bank-note circulation are not comparable with those of earlier years. However, statistics of total notes in the hands of the general public are comparable. This public circulation includes chartered bank notes together with Dominion or Bank of Canada notes, exclusive of those held by the banks as reserves. Statistics on this basis are shown in Table **6**.

6.—Annual Averages of Note Circulation in the Hands of the Public, 1937-46

NOTE.—Figures of circulating media in the hands of the general public for the years 1900-35 appear at p. 900 of the 1936 Year Book. Figures comparable to those shown below for the years 1926-36 are given at p. 959 of the 1946 edition.

Year	Averages of Month-End Figures			Averages of Daily Figures of Total	
	Chartered Bank Notes[1]	Dominion or Bank of Canada Notes[2]	Total	Amount[3]	Per Capita[4]
	$	$	$	$	$
1937	104,211,037	94,876,384	199,087,421	200,000,000	18·11
1938	93,978,355	109,748,030	203,726,385	205,000,000	18·38
1939	88,820,636	129,261,655	218,082,291	216,000,000	19·17
1940	87,194,399	206,916,964	294,111,363	287,000,000	25·22
1941	78,761,049	320,037,329	398,798,378	386,000,000	33·54
1942	69,502,871	472,011,416	541,514,287	523,000,000	44·88
1943	49,082,172	660,998,231	710,080,403	688,000,000	58·25
1944	37,056,187[5]	821.330,660	858,386,847	835,000,000	69·73
1945	28,636,174[5]	940,911,000	969,547,174	951,000,000	78·47
1946	23,172,717[5]	981,727,494	1,004,900,211	992,000,000	80·60

[1] Gross note circulation of chartered banks less notes of other chartered banks. [2] Total issue less notes held by chartered banks and notes deposited in the Central Gold Reserves up to March, 1935. [3] Figures, to nearest million, supplied by the Bank of Canada. [4] Figures based on estimates of population as given at p. 100. [5] Gross note circulation only; notes of other chartered banks not available

Subsection 3.—Money Supply

The expansion in the money supply of Canada continued year by year from 1933 to 1946, amounting in the latter year to $7,210,000,000, nearly three and one-half times as great as thirteen years before. Most of the expansion occurred in the war period from 1939 to 1945; the money supply which had been $2,672,000,000 in 1938 was $4,538,000,000 or about 170 p.c. greater in 1946.

Relative Importance of the Main Components of the Money Supply.—It is customary to regard the money supply as consisting of notes and coin in the hands of the public and the sum of bank deposits subject to cheque. The striking feature during the war period was the predominant percentage increase in bank notes which made up 13·9 p.c. of the money supply in 1946 as against 7·6 p.c. in 1938. This expansion in use of notes indicates a shift in the distribution of income and in the methods of conducting trade.

It was estimated that the amount of subsidiary coin in the hands of the public increased 114·8 p.c. between 1938 and 1946. As the percentage gain was less than that of the money supply as a whole, the relative importance was less in 1946 than in 1938, dropping from 1·1 p.c. to 0·9 p.c.

The amount of the notes in the hands of the public is obtained by deducting the holdings of the different classes of banks from the total amount of Bank of Canada and chartered bank notes reported as in circulation. The amount of the subsidiary coin is estimated by deducting the holdings of the chartered banks and the Bank of Canada from the total amount outstanding as reported by the Mint.

The rise in bank deposits subject to cheque reflects the great expansion in economic activity since the beginning of the War. The sum of deposits was nearly 152 p.c. greater in 1946 than in 1938. Despite this increase, the relative importance of deposits as a component of the money supply was less in 1946 than at the beginning of the period. The relative position was 85·2 p.c. in 1946 against 91·3 p.c. in 1938, the marked gain in the circulation of bank notes largely accounting for the drop.

7.—Money Supply, Month-End Averages, 1919-46

Year	Total Notes in Hands of Public	Subsidiary Coin in Hands of Public	Sum of Deposits[1]	Money Supply
	$'000,000	$'000,000	$'000,000	$'000,000
1919	217·0	22·97	1,950·7	2,191
1920	214·2	24·48	2,102·9	2,342
1921	171·2	24·50	1,979·5	2,175
1922	151·7	24·39	1,806·9	1,983
1923	160·1	24·43	1,805·3	1,990
1924	179·0	24·33	1,798·1	2,001
1925	175·8	24·33	1,859·1	2,059
1926	180·2	24·24	1,946·8	2,151
1927	184·0	24·20	2,066·1	2,274
1928	189·0	25·17	2,238·1	2,452
1929	191·5	26·46	2,278·6	2,497
1930	173·0	26·55	2,126·2	2,326
1931	157·5	27·03	2,089·9	2,274
1932	149·4	27·55	1,944·3	2,121
1933	149·7	27·47	1,929·0	2,106
1934	155·7	27·90	1,952·6	2,136
1935	165·8	27·87	2,094·9	2,289
1936	179·8	28·20	2,235·2	2,433
1937	199·1	29·47	2,380·4	2,609
1938	203·7	29·38	2,438·7	2,672
1939	218·1	31·44	2,626·7	2,876
1940	294·1	35·44	2,800·0	3,130
1941	398·8	39·33	3,089·0	3,527
1942	541·5	44·40	3,400·4	3,986
1943	710·1	51·67	4,075·3	4,837
1944	858·4	56·90	4,773·4	5,689
1945	969·5	60·94	5,481·9	6.512
1946	1,004·9	63·12	6,142·0	7,210

[1] These figures do not agree with those in Table 9 as the latter include Federal Government and other deposits in the Bank of Canada.

Section 4.—Monetary Reserves

Subsection 1.—Bank of Canada Reserves

The composition of Canadian gold reserves held by the Government is presented in the 1936 edition of the Year Book, at p. 895, for the years 1905 to 1934. Since March, 1935, the gold reserves have been held by the Bank of Canada. By authority of the Exchange Fund Act (c. 60, 1935), effective in July, 1935, they are valued at the prevailing current market price of gold. The new data are now to be found under the item "Reserves" in the "Assets" section of Table 1, p. 1017. As explained in footnote 2 of that table, under the Exchange Fund Order of Apr. 30, 1940, the gold reserves of the Bank of Canada were transferred to the Foreign Exchange Control Board and the requirement that the Bank should maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada was temporarily suspended.

Subsection 2.—Chartered Bank Canadian Cash Reserves

Before the Establishment of the Bank of Canada.—Up to March, 1935, legal tender cash reserves in Canada were made up partly of Dominion notes; partly of gold coin and bullion, and subsidiary coin, including these forms of cash held by the banks themselves; and as deposits in the Central Gold Reserves. In so far as these reserves were in actual gold or were in Dominion notes backed by gold, they were subject to the expanding or contracting influences of monetary gold imports or exports arising from Canada's balance of international payments, so long as Canada was on the gold standard.

Since the Establishment of the Bank of Canada.—When the Bank of Canada was established, the chartered banks turned over their reserves of gold in Canada and Dominion notes to the new bank in exchange for deposits with, and notes of, the Bank of Canada. It was provided that, henceforth, the chartered banks were to carry reserves in these forms amounting to at least 5 p.c. of their deposit liabilities in Canada. Since that time, therefore, the gold reserves against currency and bank credit have been in the custody of the central bank, except as affected by the Exchange Fund Order, 1940, as explained under Bank of Canada reserves in Subsection 1.

8.—Annual Averages of Cash Reserves of the Chartered Banks, 1937-46

NOTE.—Figures, to nearest million, supplied by the Bank of Canada. Cash reserves prior to Mar. 11, 1935, include gold and coin and Dominion notes held by the banks in Canada and deposits in the Central Gold Reserves not earmarked; since that date, they include notes and deposits with the Bank of Canada. Figures for the years 1926-36 are given at p. 960 of the 1946 Year Book.

Year	Annual Average of Daily Figures	Annual Average of Month-End Figures	Year	Annual Average of Daily Figures	Annual Average of Month-End Figures
	$	$		$	$
1937	240,000,000	240,000,000	1942	342,000,000	340,000,000
1938	254,000,000	252,000,000	1943	423,000,000	413,000,000
1939	269,000,000	268,000,000	1944	538,000,000	527,000,000
1940	289,000,000	287,000,000	1945	603,000,000	593,000,000
1941	313,000,000	308,000,000	1946	672,000,000	673,000,000

Section 5.—Commercial Banking

Subsection 1.—Historical

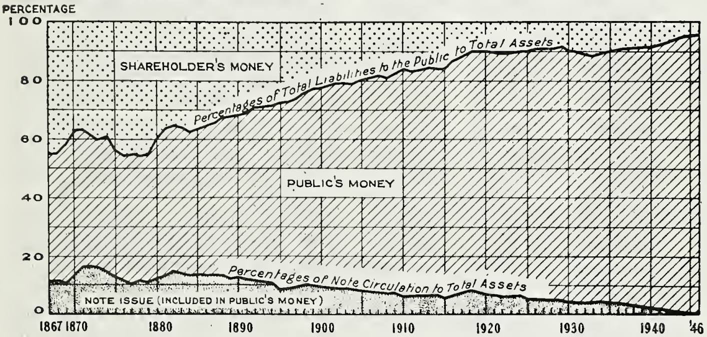
Since one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in the one historical sketch, which is given at pp. 901-905 of the 1938 Year Book. A list of the banks at Confederation appears at p. 897 of the 1940 Year Book and bank absorptions since 1867 are given at pp. 812-813 of the 1941 edition. A table at pp. 894-895 of the 1937 Year Book shows the insolvencies from Confederation; the last insolvency occurred in 1923.

A summary of the more important changes resulting from the revision of the Bank Act in 1944 is given at pp. 961-962 of the 1946 Year Book.

Subsection 2.—Combined Statistics of Chartered Banks

In order to afford a clear view of the nature of banking transactions in Canada, bank liabilities have been classified in Table 9 in two main groups: liabilities to shareholders and liabilities to the public. Only the latter group is ordinarily considered when determining the financial position of any such institution. Assets are divided into four groups, "other assets" being included in the total. Of interest to students of banking practice, the relative rates of increase of capital and reserve funds may be noted, also the great increase in the proportion of liabilities to the public to total liabilities, and the gradually increasing percentage of liabilities to the public to total assets. The chart below showing the division of ownership of assets is of interest in this connection. The declining proportion of notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times. Holdings of Federal and Provincial Government and municipal securities were relatively insignificant prior to the War of 1914-18.

PERCENTAGE DISTRIBUTION OF LIABILITIES TO ASSETS



9.—Development of Chartered Banking Business in Canada, 1927-46

NOTE.—These statistics are yearly averages computed from the twelve monthly returns in each year. Figures for the years 1867-1880 will be found at pp. 918-919 of the 1938 Year Book; for the years 1881-1915 at pp. 815-816 of the 1941 edition; and for the years 1916-26 at pp. 963-964 of the 1946 edition.

Year	LIABILITIES						
	Liabilities to Shareholders		Liabilities to the Public				
	Capital	Rest or Reserve Fund	Notes in Circulation	Demand Deposits in Canada	Notice Deposits in Canada	Total on Deposit[1]	Total Public Liabilities[2]
	$	$	$	$	$	$	$
1927...	121,666,774	130,320,897	172,100,763	596,069,007	1,399,062,201	2,415,132,260	2,758,324,713
1928...	122,839,879	134,087,485	176,716,979	677,467,295	1,496,608,451	2,610,594,865	3,044,742,165
1929...	137,269,085	150,636,682	178,291,030	696,387,381	1,479,870,058	2,696,747,857	3,215,503,098
1930...	144,560,874	160,639,246	159,341,085	622,895,347	1,427,569,716	2,516,611,587	2,909,530,263
1931...	144,674,853	162,075,000	141,969,350	578,604,394	1,437,976,832	2,422,834,828	2,741,554,219
1932...	144,500,000	162,000,000	132,165,942	486,270,764	1,376,325,128	2,256,639,530	2,546,149,789
1933...	144,500,000	157,250,000	130,362,488	488,527,864	1,378,497,944	2,236,841,539	2,517,934,260
1934...	144,916,667	132,604,166	135,537,793	513,973,506	1,372,817,869	2,274,607,936	2,548,720,434
1935...	145,500,000	132,750,000	125,644,102	568,615,373	1,445,281,247	2,426,760,923	2,667,950,352
1936...	145,500,000	133,000,000	119,507,306	618,340,561	1,518,216,945	2,614,895,597	2,855,622,232
1937...	145,500,000	133,750,000	110,259,134	691,319,545	1,573,654,555	2,775,530,413	3,025,721,653
1938...	145,500,000	133,750,000	99,870,493	690,485,877	1,630,481,857	2,823,686,934	3,056,684,905
1939...	145,500,000	133,750,000	94,064,907	741,733,241	1,699,224,304	3,060,859,111	3,298,351,099
1940...	145,500,000	133,750,000	91,134,378	875,059,476	1,646,891,010	3,179,523,062	3,411,104,825
1941...	145,500,000	133,916,667	81,620,753	1,088,198,370	1,616,129,007	3,464,781,844	3,711,870,680
1942...	145,500,000	135,083,333	71,743,242	1,341,499,012	1,644,842,331	3,834,335,141	4,102,355,598
1943...	145,500,000	136,750,000	50,230,204	1,619,407,736	1,864,177,700	4,592,336,705	4,849,222,532
1944...	145,500,000	136,750,000	37,056,187	1,863,793,981	2,272,573,361	5,422,302,978	5,689,443,095
1945...	145,500,000	136,750,000	28,636,174	1,986,075,142	2,750,358,254	6,159,997,976	6,438,617,676
1946...	145,500,000	144,666,667	23,172,717	2,155,312,749	3,327,057,442	6,771,555,153	7,123,979,417

For footnotes, see end of table, p. 1026.

9.—Development of Chartered Banking Business in Canada, 1927-46—concluded

Year	ASSETS						P.C. of Public Liabilities to Total Assets
	Specie and Dominion or Bank of Canada Notes	Federal and Provincial Government Securities	Municipal Securities in Canada and Public Securities Elsewhere	Total Securities	Total Loans	Total Assets[3]	
	$	$	$	$	$	$	p.c.
1927...	252,188,447[4]	324,580,796	133,314,843	520,971,402	1,839,905,275	3,029,680,616	91·04
1928...	264,804,251[4]	333,837,004	124,996,823	522,628,208	2,072,403,628	3,323,163,195	91·62
1929...	261,625,173[4]	341,744,572	104,309,024	499,015,138	2,279,247,504	3,528,468,027	91·13
1930...	232,016,616[4]	316,196,343	101,585,131	471,637,542	2,064,597,746	3,237,073,853	89·88
1931...	207,983,857[4]	454,386,965	154,829,056	674,357,232	1,764,088,477	3,066,018,472	89·42
1932...	206,925,103[4]	489,709,241	150,891,599	695,758,801	1,582,667,313	2,869,429,779	88·73
1933...	209,550,285[4]	626,881,709	163,834,318	841,151,958	1,409,067,110	2,831,393,641	88·93
1934...	214,419,280[4]	683,498,403	139,850,099	866,725,958	1,373,683,071	2,837,919,961	89·81
1935...	227,692,952[5, 6]	860,942,292	137,764,626	1,044,351,653	1,276,430,825	2,956,577,704	90·24
1936...	240,596,447[5]	1,074,795,141	161,879,725	1,330,808,991	1,140,557,800	3,144,506,755	90·81
1937...	249,372,724[5]	1,118,893,938	181,972,016	1,426,371,394	1,200,574,223	3,317,087,132	91·22
1938...	262,354,597[5]	1,143,040,485	170,487,703	1,439,666,822	1,200,692,605	3,348,708,580	91·28
1939...	279,161,539[5]	1,234,066,994	179,924,335	1,540,330,246	1,243,616,409	3,591,564,586	91·84
1940...	296,877,855[5]	1,311,641,053	157,361,535	1,579,467,048	1,324,021,841	3,707,316,459	92·01
1941...	318,039,223[5]	1,483,299,697	149,467,128	1,726,543,416	1,403,181,296	4,008,381,256	92·60
1942...	349,729,409[5]	1,806,891,877	182,052,417	2,073,471,530	1,370,418,799	4,399,820,746	93·24
1943...	422,561,348[5]	2,404,756,734	232,405,156	2,713,939,940	1,334,080,022	5,148,458,722	94·19
1944...	538,206,187[5]	2,991,047,582	283,417,399	3,353,259,736	1,343,938,364	5,990,410,887	94·98
1945...	604,842,928[5]	3,438,830,751	313,061,291	3,857,534,890	1,505,039,333	6,743,217,134	95·48
1946...	686,368,427[5]	3,734,872,237	381,996,554	4,287,002,710	1,642,519,066	7,429,608,029	95·89

[1] Includes the deposits of Federal and Provincial Governments and also deposits elsewhere than in Canada. [2] Includes other liabilities to the public. [3] Includes other assets. [4] Includes deposits in Central Gold Reserves. [5]Notes of, and deposits in, the Bank of Canada and specie. [5]Ten-month average.

10. Assets of Chartered Banks, 1942-46

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
Cash reserves against Canadian deposits (as per Table 8).....	340,243,150	412,834,602	526,874,824	592,867,223	672,762,767
Subsidiary coin..................	6,723,999	6,991,299	8,694,595	9,343,542	10,817,528
Notes of other Canadian banks	2,240,371	1,148,032	222,305,178[1]	232,805,515[1]	251,558,442[1]
Cheques of other banks........	162,871,487	189,114,743			
Deposits at other Canadian banks......................	3,117,674	2,503,852	2,534,265	2,616,417	2,542,969
Gold and coin abroad.........	2,762,260	2,735,447	2,636,768	2,632,114	2,788,109
Foreign currencies............	39,579,069	66,976,350	106,180,869	96,418,427	94,545,941
Deposits at United Kingdom banks......................	44,458,867	55,990,635	42,353,724	41,065,991	28,497,537
Deposits at foreign banks......	139,991,802	156,911,232	181,249,668	192,180,650	175,873,662
Securities—					
Federal and Provincial Government securities.........	1,806,891,877	2,404,756,734	2,991,047,582	3,438,830,751	3,734,872,237
Other Canadian and foreign public securities...........	182,052,417	232,405,156	283,417,399	313,061,291	381,996,554
Other bonds, debentures and stocks.....................	84,527,236	76,778,050	78,794,755	105,642,848	170,133,919
Call and Short Loans—					
In Canada....................	28,693,801	34,697,849	62,428,611	129,871,551	131,944,670
Elsewhere....................	55,508,955	80,868,655	99,745,985	108,483,349	87,186,136

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[1] Not shown separately since August, 1944.

10.—Assets of Chartered Banks, 1942-46—concluded

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
Current Loans—					
Canada—					
Loans to Provincial Governments	8,061,358	5,505,875	6,223,023	11,987,899	15,607,671
Loans to cities, towns, municipalities and school districts	72,102,455	55,862,298	37,409,437	22,536,443	28,580,333
Other current loans and discounts	1,074,703,498	1,052,702,964	1,022,117,870	1,100,493,367	1,223,437,931
Elsewhere than in Canada	127,224,222	101,667,089	114,202,426	130,510,874	154,811,967
Non-current loans	4,124,510	2,775,292	1,811,012	1,155,850	950,358
Other Assets—					
Real estate, other than bank premises	6,001,679	5,113,871	3,667,696	2,106,279	1,604,785
Mortgages on real estate sold by the banks	3,399,524	3,124,855	2,453,173	2,146,201	1,672,166
Bank premises	69,126,479	66,705,291	63,907,545	62,792,527	64,533,559
Bank circulation redemption fund	4,266,658	3,696,690	2,776,557	2,030,754	1,532,267
Liabilities of customers under letters of credit as *per contra*	118,064,200	113,289,929	113,887,283	125,296,836	175,810,337
All other assets	13,083,198	13,301,932	13,690,642	16,340,435	15,546,184
Totals, Assets	**4,399,820,746**	**5,148,458,722**	**5,990,410,887**	**6,743,217,134**	**7,429,608,029**

11.—Liabilities of Chartered Banks, 1942-46

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
LIABILITIES TO THE PUBLIC					
Notes in circulation	71,743,242	50,230,204	37,056,187	28,636,174	23,172,717
Deposit Liabilities—					
Government Deposits—					
Federal	267,172,846	425,628,704	464,521,970	541,976,377	363,047,533
Provincial	79,441,153	95,622,892	105,146,178	110,671,712	120,274,679
Public Deposits—					
Demand	1,341,499,012	1,619,407,736	1,863,793,981	1,986,075,142	2,155,312,749
Notice	1,644,842,331	1,864,177,700	2,272,573,361	2,750,358,254	3,327,057,442
Other[1]	–	–	59,495,010[2]	54,691,038	76,243,048
Foreign	501,379,799	587,499,673	696,435,818	716,225,453	729,619,702
Inter-Bank Deposits—					
Canadian	13,003,617	13,242,169	17,700,142	17,895,061	19,338,432
United Kingdom	23,957,998	32,405,240	32,072,586	36,859,630	31,809,528
Other	33,487,478	40,792,612	58,721,002	63,326,006	96,151,327
Totals, Deposit Liabilities[3]	3,904,784,234	4,678,776,726	5,530,796,708	6,278,078,673	6,918,854,440

For footnotes, see end of table, p. 1028.

11.—Liabilities of Chartered Banks, 1942-46—concluded

Item	1942	1943	1944	1945	1946
	$	$	$	$	$
Canadian currency (estimated)	*3,319,000,000*	*3,962,000,000*	*4,686,000,000*	*5,378,000,000*	*5,993,000,000*
Foreign currency (estimated)..	*585,000,000*	*716,000,000*	*844,000,000*	*900,000,000*	*925,000,000*
Totals, Note and Deposit Liabilities..................	3,976,527,476	4,729,006,930	5,567,852,895	6,306,714,847	6,942,027,157
Other Liabilities to the Public—					
Bills payable................	12,309	Nil	Nil	Nil	Nil
Letters of credit outstanding.	118,064,200	113,289,929	113,887,283	125,296,836	175,810,337
Liabilities not included under foregoing headings.........	7,751,613	6,925,673	7,702,917	6,605,993	6,141,923
TOTALS, LIABILITIES TO THE PUBLIC......................	4,102,355,598	4,849,222,532	5,689,443,095	6,438,617,676	7,123,979,417
LIABILITIES TO SHAREHOLDERS					
Capital........................	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000
Rest or reserve fund...........	135,083,333	136,750,000	136,750,000	136,750,000	144,666,667
Grand Totals, Liabilities.....	**4,382,938,931**	**5,131,472,532**	**5,971,693,095**[2]	**6,720,867,676**	**7,414,146,084**

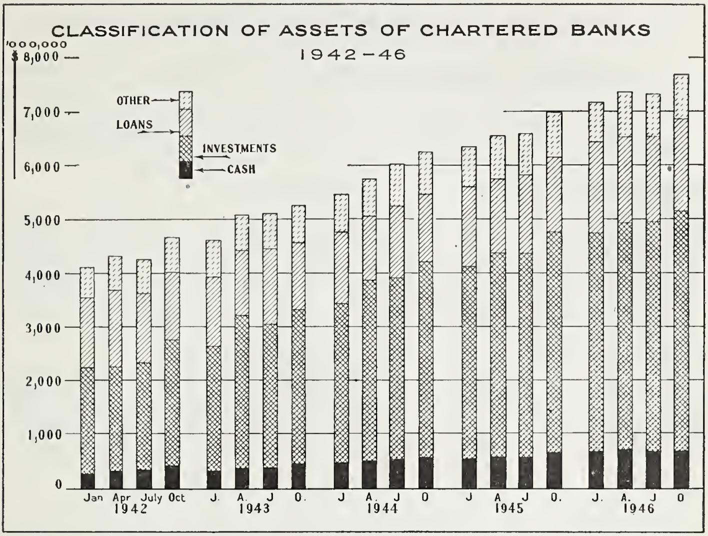
[1] Deposits in currencies other than Canadian, expressed in Canadian dollars at current rate of exchange. [2] Four-month average; not shown prior to September, 1944. The grand total is, however, a twelve-month average. [3] Totals do not correspond with those in Table 9 because of the inclusion here of inter-bank deposits.

12.—Ratio Comparisons of Certain Assets and Liabilities of Chartered Banks, 1937-46

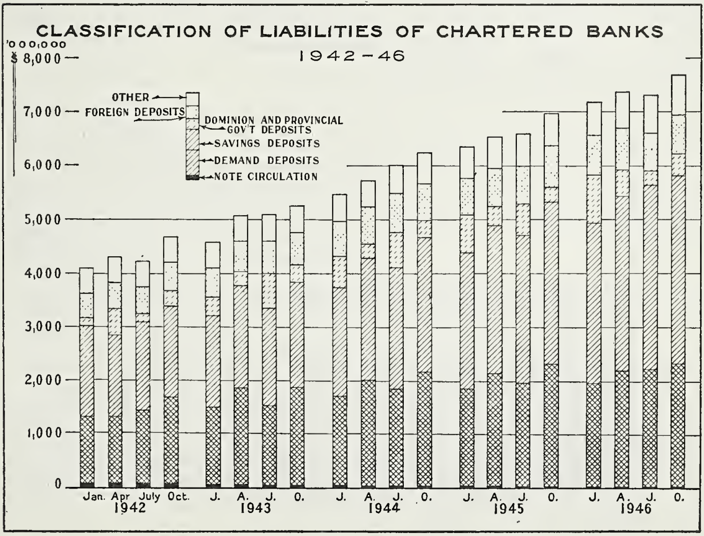
NOTE.—Yearly averages of month-end figures, except where otherwise specified. Figures for the years 1926-36 will be found at p. 966 of the 1946 Year Book.

Year	Canadian Cash to Canadian Deposits		Securities to Note and Deposit Liabilities	Loans to Note and Deposit Liabilities
	Daily[1]	Month-End		
	p.c.	p.c.	p.c.	p.c.
1937....................................	10·2	10·1	48·4	40·7
1938....................................	10·5	10·3	48·1	40·1
1939....................................	10·4	10·2	47·5	38·4
1940....................................	10·6	10·4	47·3	39·6
1941....................................	10·5	10·2	47·8	38·9
1942....................................	10·5	10·2	52·1	34·5
1943....................................	10·9	10·4	57·4	28·2
1944....................................	11·8	11·2	60·2	24·1
1945....................................	11·4	11·0	61·2	23·9
1946....................................	11·4	11·2	61·8	23·7

[1] Figures supplied by the Bank of Canada.



CLASSIFICATION OF ASSETS OF CHARTERED BANKS
1942–46



CLASSIFICATION OF LIABILITIES OF CHARTERED BANKS
1942–46

13.—Deposits, According to Size and Currency, in Chartered Banks, as at Oct. 31, 1946

NOTE.—Figures of deposits in Canadian currency only for earlier years will be found in the corresponding table of previous editions of the Year Book.

Class and Amount of Deposit	Deposits in Canadian Currency		Class and Amount of Deposit	Deposits in Currencies Other Than Canadian	
	No.	$		No.	$
Deposits Payable on Demand—			**Deposits Payable on Demand—**		
$1,000 or less	649,167	165,646,398	$1,000 or less	1,242	512,724
$1,000 to $5,000	142,327	307,191,262	$1,000 to $5,000	479	1,185,115
$5,000 to $25,000	37,096	372,287,072	$5,000 to $25,000	316	3,511,060
$25,000 to $100,000	7,453	350,889,582	$25,000 to $100,000	168	8,359,921
Over $100,000	2,416	1,097,651,517	Over $100,000	96	61,267,370
Adjustment items[1]	-	22,004,496	Adjustment items[1]	-	12,463,543
Totals	**838,459**	**2,315,670,327**	**Totals**	**2,301**	**87,299,733**
Deposits Payable After Notice—			**Deposits Payable After Notice—**		
$1,000 or less	5,290,728	900,980,404	$1,000 or less	147	17,408
$1,000 to $5,000	690,155	1,373,253,978	$1,000 to $5,000	14	24,005
$5,000 to $25,000	77,492	645,338,222	$5,000 to $25,000	5	43,207
$25,000 to $100,000	4,111	180,501,393	$25,000 to $100,000	2	107,537
Over $100,000	971	365,711,216	Over $100,000	-	Nil
Adjustment items[1]	-	10,946,020	Adjustment items[1]	-	Nil
Totals	**6,063,457**	**3,476,731,233**	**Totals**	**168**	**192,157**

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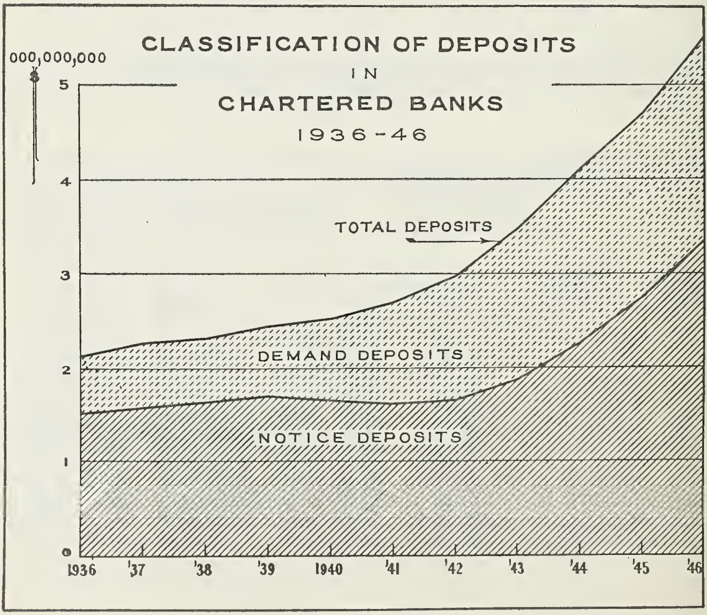
[1] Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.



14.—Loans, According to Class, Made by Chartered Banks and Outstanding, as at Oct. 31, 1944-46

Note.—Figures for earlier years will be found in the corresponding table of previous editions of the Year Book.

Class of Loan	1944	1945	1946
	$	$	$
Provincial Government	5,358,057	11,484,285	12,116,968
Municipal Government and school district	33,236,575	20,219,900	26,544,759
Agricultural—			
Loans to farmers, cattlemen and fruit growers	57,685,220	71,277,960	109,773,783
Loans to grain dealers, grain exporters and seed merchants	209,280,135	109,526,961	67,720,952
Totals, Agricultural	266,965,355	180,804,921	177,494,735
Financial—			
Call loans and other accommodation to brokers and bond dealers	56,813,397	130,617,338	97,788,415
Loans to trust, loan, mortgage, investment and insurance companies, and other financial institutions	27,615,373	34,182,234	63,742,856
Loans to individuals against approved stocks and bonds not otherwise classified	125,033,226	172,542,182	220,826,908
Totals, Financial	209,461,996	337,341,754	382,358,179
Merchandising, wholesale and retail	122,199,056	153,883,437	240,059,325
Manufacturing—dealers in lumber, pulpwood, and products thereof	52,839,841	61,445,295	79,420,060
Other manufacturing of all descriptions	201,576,162	189,210,529	238,838,107
Mining	12,731,923	11,472,036	13,702,190
Fishing, including packers and curers of fish	11,558,311	11,445,196	16,437,941
Public utility, including transportation companies	6,317,757	7,823,631	15,878,106
Building—contractors and others for building purposes	39,047,702	47,578,121	71,766,822
Charitable, religious and educational institutions—churches, parishes, hospitals, etc	6,243,283	6,388,526	7,784,535
Other	82,032,417	100,369,928	156,476,195
Grand Totals	**1,049,568,435**	**1,139,467,559**	**1,438,877,922**

Cheque Payments.—The great bulk of monetary transfers in Canada is made through the banks, payments in notes and coin being of relatively minor importance. It is estimated that about 80 p.c. of all business transactions are financed by cheque, and the amount of the cheques paid through the banks and charged to deposit accounts is thus a fairly accurate measurement of the volume of business transacted in a given period.

Monthly aggregate figures of the amount of cheques charged to accounts at all banking offices situated in the clearing-house centres of Canada are available from January, 1924.

The amount of cheques cashed by the banks reached a peak in 1946, reflecting the active economic conditions obtaining during the war years. A continuous advance was shown year by year from 1938, the increase in 1946 over that year amounting to 124 p.c. Transactions of this nature amounted to $46,670,000,000 in 1929, the culmination of the previous major economic cycle, about 33 p.c. less than the $69,248,000,000 recorded in 1946. The advance throughout the war years was general in the five economic areas. The gain in British Columbia was especially pronounced, the value of cheques cashed in that Province advancing 177 p.c. from 1938 to 1946.

15.—Cheques Cashed at Individual Clearing-House Centres, 1942-46

NOTE.—Figures for earlier years will be found in the corresponding table in previous Year Books.

Clearing-House Centre	1942	1943	1944	1945	1946
	$	$	$	$	$
Maritime Provinces—					
Halifax	601,963,388	672,762,400	707,345,558	850,393,003	870,735,782
Moncton	184,165,605	207,076,041	231,547,502	257,723,155	276,711,273
Saint John	289,607,897	363,924,420	388,767,904	445,474,600	456,571,211
Totals, Maritime Provinces	1,075,736,890	1,243,762,861	1,327,660,964	1,553,590,758	1,604,018,266
Quebec—					
Montreal	11,392,049,905	13,761,657,086	15,441,044,068	17,486,992,168	18,828,185,425
Quebec	1,231,242,129	1,476,503,724	1,633,078,085	1,648,626,349	1,722,532,681
Sherbrooke	127,801,593	135,720,215	148,165,207	173,714,466	198,641,707
Totals, Quebec	12,751,093,627	15,373,881,025	17,222,287,360	19,309,332,983	20,749,359,813
Ontario—					
Brantford	208,615,177	232,033,285	239,304,256	253,506,245	269,742,168
Chatham	119,967,266	132,107,887	144,553,172	171,783,508	185,640,451
Fort William	122,471,043	131,640,784	168,928,365	171,655,637	185,151,376
Hamilton	1,311,159,162	1,331,492,619	1,375,804,380	1,360,759,670	1,460,388,257
Kingston	136,325,283	155,048,257	166,553,903	179,185,124	205,647,350
Kitchener	261,214,568	277,983,952	288,161,663	324,490,838	363,577,527
London	543,181,606	594,565,226	667,833,039	819,218,952	871,610,947
Ottawa	6,306,952,488	7,041,856,827	7,702,608,563	7,810,891,068	5,170,462,037
Peterborough	141,611,607	148,557,997	149,188,780	166,315,914	197,282,253
St. Catharines	243,221,277	263,819,718	246,493,553	241,951,191	253,814,244
Sarnia	132,311,935	164,342,335	185,769,583	231,195,323	244,695,664
Sudbury	104,074,081	103,585,400	112,651,722	127,466,405	153,372,708
Toronto	11,540,621,984	13,091,307,830	14,445,952,616	18,760,599,503	19,907,026,302
Windsor	964,436,773	1,013,360,025	1,009,140,966	924,342,237	933,544,600
Totals, Ontario	22,136,164,250	24,681,702,142	26,902,944,561	31,543,361,615	30,401,955,884
Prairie Provinces—					
Brandon	68,833,401	78,328,898	90,136,926	90,943,819	104,139,525
Calgary	948,012,956	1,201,421,721	1,498,387,721	1,523,535,631	1,602,017,603
Edmonton	725,037,893	988,229,423	1,060,248,757	1,165,857,185	1,213,183,915
Lethbridge	79,005,926	95,167,384	116,810,111	118,733,308	146,971,392
Medicine Hat	47,557,340	59,430,281	66,030,272	65,280,363	74,791,412
Moose Jaw	110,843,446	140,275,534	169,470,394	173,806,127	185,849,046
Prince Albert	54,803,986	59,218,070	81,775,325	84,699,682	104,869,722
Regina	635,557,561	776,839,850	1,155,130,243	1,111,542,712	977,251,230
Saskatoon	179,836,046	208,744,991	264,083,618	291,705,073	349,200,751
Winnipeg	3,872,888,067	5,592,307,440	6,986,366,445	6,936,060,331	6,366,405,086
Totals, Prairie Provinces	6,722,376,622	9,199,963,592	11,488,439,812	11,562,164,231	11,124,679,682
British Columbia—					
New Westminster	138,131,490	153,522,022	175,523,212	199,961,938	226,075,659
Vancouver	2,222,168,311	2,636,094,977	3,059,154,952	3,615,095,540	4,354,229,708
Victoria	480,583,012	507,788,108	500,943,546	601,306,096	787,288,421
Totals, British Columbia	2,840,882,813	3,297,405,107	3,735,621,710	4,416,363,574	5,367,593,788
Grand Totals	**45,526,254,202**	**53,796,714,727**	**60,676,954,407**	**68,384,813,161**	**69,247,607,433**

Subsection 3.—Statistics of Individual Chartered Banks

Assets and Liabilities.—"Cash Reserves Against Deposits" as shown in Table **16** represented the years 1935 (when the Bank of Canada was established), and 1943 to 1946, the total of Bank of Canada notes in the possession of the chartered banks together with their deposits at the Bank of Canada. For 1929 (before the establishment of the Bank of Canada), they represented the totals of the banks' holdings of gold and coin in Canada, Dominion notes, and that part of their deposits in the Central Gold Reserve not required against their note issues.

16.—Principal and Total Assets of Individual Chartered Banks, 1929, 1935 and 1943-46

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Bank	Year	Cash Reserve Against Canadian Deposits[1]	Total Securities	Total Loans	Total Assets
		$	$	$	$
Bank of Montreal	1929	86,400,000	130,941,236	581,302,970	913,759,043
	1935	65,400,000	349,672,401	266,878,000	766,144,449
	1943	113,365,000	749,289,581	298,613,165	1,294,063,425
	1944	152,163,000	888,358,483	288,739,608	1,463,971,405
	1945	155,694,000	1,028,777,079	320,982,087	1,647,636,170
	1946	190,383,638	1,119,635,649	347,356,037	1,796,990,122
Bank of Nova Scotia	1929	18,400,000	44,107,378	172,881,551	275,257,022
	1935	23,400,000	103,828,021	110,217,442	277,368,870
	1943	32,375,000	199,768,732	126,553,699	454,173,434
	1944	35,408,000	239,209,902	135,997,990	522,964,177
	1945	39,710,000	281,311,595	159,462,363	594,926,370
	1946	47,688,633	340,502,098	171,571,301	667,529,926
Bank of Toronto	1929	8,700,000	17,633,621	89,012,432	134,485,442
	1935	11,000,000	43,941,167	51,748,891	121,582,723
	1943	21,974,000	124,128,369	62,770,631	228,714,679
	1944	31,218,000	160,907,662	58,691,985	271,215,993
	1945	34,394,000	190,060,578	66,689,428	314,191,547
	1946	35,646,203	204,806,135	77,910,256	345,568,053
Provincial Bank of Canada	1929	1,200,000	10,203,136	33,956,608	54,648,363
	1935	2,400,000	20,044,145	18,463,790	48,383,082
	1943	8,270,000	49,160,725	18,570,968	83,469,007
	1944	10,458,000	64,291,106	19,559,042	103,246,904
	1945	13,047,000	75,306,666	23,220,529	120,548,822
	1946	14,898,961	85,751,626	27,163,002	137,328,250
Canadian Bank of Commerce	1929	40,000,000	86,446,466	498,345,544	737,542,966
	1935	46,500,000	206,399,787	253,387,099	585,971,609
	1943	78,008,000	499,481,739	279,002,887	973,848,715
	1944	99,250,000	626,705,008	275,643,982	1,125,254,661
	1945	116,870,000	725,688,510	290,846,428	1,252,362,957
	1946	130,366,047	822,897,644	294,863,669	1,377,251,874
Royal Bank of Canada	1929	38,300,000	126,757,074	614,062,764	949,919,252
	1935	42,000,000	192,962,019	379,979,253	750,717,195
	1943	96,764,000	708,460,233	344,694,693	1,377,885,201
	1944	118,133,000	882,252,832	359,279,825	1,634,474,340
	1945	134,605,000	993,034,484	399,083,314	1,811,296,321
	1946	146,660,814	1,104,740,478	431,800,548	1,995,398,750
Dominion Bank	1929	7,700,000	20,378,753	99,205,694	150,976,550
	1935	8,300,000	36,766,116	62,975,908	126,554,150
	1943	19,592,000	106,113,235	69,530,733	222,719,891
	1944	25,076,000	136,092,959	69,123,864	258,058,097
	1945	30,014,000	160,663,455	75,842,878	296,836,249
	1946	32,736,010	176,992,982	89,038,551	332,271,132
Banque Canadienne Nationale	1929	4,400,000	39,444,192	90,376,497	155,406,098
	1935	8,300,000	49,179,738	54,918,167	128,034,699
	1943	19,553,000	130,560,762	50,744,909	221,646,620
	1944	24,652,000	169,260,772	54,475,871	270,164,970
	1945	32,092,000	190,293,060	69,077,946	313,284,691
	1946	34,686,416	204,576,423	89,386,811	352,811,873
Imperial Bank of Canada	1929	7,300,000	21,818,113	96,859,437	148,644,987
	1935	7,700,000	36,690,525	75,599,203	137,764,752
	1943	21,031,000	134,965,331	79,073,928	262,987,005
	1944	28,096,000	173,510,623	77,531,437	309,868,975
	1945	33,346,000	195,306,534	96,288,029	358,043,504
	1946	37,003,289	207,917,098	110,364,934	391,019,769
Weyburn Security Bank[2]	1929	200,000	1,165,832	3,178,206	6,349,160

For footnotes, see end of table, p. 1034.

16.—Principal and Total Assets of Individual Chartered Banks, 1929, 1935 and 1943-46 —concluded

Bank	Year	Cash Reserve Against Canadian Deposits[1]	Total Securities	Total Loans	Total Assets
		$	$	$	$
Barclays Bank (Canada)...........	1929[3]	100,000	358,012	197,405	4,437,434
	1935	600,000	4,867,734	2,263,072	14,056,175
	1943	1,903,000	12,011,233	4,524,409	28,950,745
	1944	2,421,000	12,670,389	4,894,760	31,191,365
	1945	3,095,000	17,092,929	3,546,331	34,090,503
	1946	2,692,756	19,182,577	3,063,957	33,438,280
Totals.....................	**1929[3]**	**212,000,000**	**499,015,138**	**2,279,247,504**	**3,528,468,027**
	1935	**215,600,000**	**1,044,351,653**	**1,276,430,825**	**2,956,577,704**
	1943	**412,835,000**	**2,713,939,940**	**1,334,080,022**	**5,148,458,722**
	1944	**526,875,000**	**3,353,259,736**	**1,343,938,364**	**5,990,410,887**
	1945	**592,867,000**	**3,857,534,890**	**1,505,039,333**	**6,743,217,134**
	1946	**672,762,767**	**4,287,002,710**	**1,642,519,066**	**7,429,608,029**

[1] Excluding minor amounts of gold carried in such reserves. See also text immediately preceding this table. [2] Absorbed by the Imperial Bank of Canada, May 1, 1931. [3] Four-month averages; bank commenced business in September, 1929. The grand totals for 1929 are, however, twelve-month averages for all banks.

17.—Principal and Total Liabilities of Individual Chartered Banks, 1929, 1935 and 1943-46

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Bank	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Shareholders	Total Liabilities
			Government	Public	Inter-Bank		
		$	$	$	$	$	$
Bank of Montreal..	1929	44,588,405	53,303,709	680,631,822	30,303,442	70,446,677	908,926,178
	1935	29,849,273	23,491,810	617,001,769	9,486,070	74,000,000	764,351,694
	1943	11,004,197	171,375,601	985,118,528	27,733,504	75,000,000	1,291,205,412
	1944	8,770,833	167,328,192	1,155,761,450	35,777,518	75,000,000	1,461,056,947
	1945	7,067,683	193,298,719	1,312,621,038	38,841,363	75,000,000	1,644,374,047
	1946	5,819,690	159,989,224	1,490,593,250	41,424,119	75,750,000	1,794,284,674
Bank of Nova Scotia...........	1929	15,956,549	3,061,797	202,312,043	6,968,960	30,000,000	272,704,813
	1935	10,771,142	2,957,607	215,204,121	4,105,639	36,000,000	276,534,562
	1943	4,644,090	34,613,984	344,384,464	8,270,796	36,000,000	452,379,006
	1944	3,379,190	38,327,952	405,864,414	11,155,101	36,000,000	521,267,098
	1945	2,627,777	44,765,397	470,370,278	10,334,321	36,000,000	592,507,194
	1946	2,162,317	30,626,724	550,437,110	12,574,082	36,000,000	665,988,178
Bank of Toronto...	1929	8,334,322	1,058,293	100,825,532	4,301,318	14,127,164	132,734,214
	1935	5,260,483	1,914,259	94,232,159	2,500,251	15,000,000	120,647,696
	1943	1,496,356	23,813,865	180,422,732	1,758,669	18,000,000	227,692,561
	1944	1,132,064	28,402,924	218,537,714	2,329,809	18,000,000	269,995,667
	1945	931,104	33,437,709	255,562,266	2,644,258	18,000,000	312,461,945
	1946	788,718	20,790,083	296,799,564	3,804,811	18,333,333	344,000,563
Provincial Bank of Canada.......	1929	4,464,714	425,790	42,296,216	121,181	5,500,000	54,146,698
	1935	3,602,388	245,491	38,919,770	45,940	5,000,000	48,052,045
	1943	1,450,010	4,201,268	72,329,456	36,526	5,000,000	83,120,450
	1944	977,137	5,867,589	90,631,964	41,155	5,000,000	102,674,119
	1945	664,250	7,023,998	106,912,715	72,055	5,000,000	119,828,249
	1946	493,212	4,461,904	126,364,229	89,758	5,166,667	137,051,857

17.—Principal and Total Liabilities of Individual Chartered Banks, 1929, 1935 and 1943-46—concluded

Bank	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Shareholders	Total Liabilities
			Government	Public	Inter-Bank		
		$	$	$	$	$	$
Canadian Bank of Commerce.......	1929	33,352,567	11,530,442	529,141,722	53,207,388	55,343,749	731,593,634
	1935	25,348,088	14,619,635	466,714,142	10,233,069	50,000,000	584,120,623
	1943	10,464,306	87,080,927	780,046,163	14,949,930	50,000,000	969,553,402
	1944	7,483,844	95,035,197	925,337,039	18,866,975	50,000,000	1,120,756,466
	1945	5,951,853	108,869,350	1,037,577,161	21,031,368	50,000,000	1,247,138,372
	1946	4,865,235	83,533,919	1,176,811,329	23,828,070	52,500,000	1,375,343,222
Royal Bank of Canada..........	1929	41,105,812	23,341,461	700,120,040	33,889,308	68,142,960	944,796,101
	1935	30,894,509	14,668,783	614,911,650	10,559,813	55,000,000	748,444,778
	1943	14,039,421	113,227,578	1,139,030,717	18,701,628	55,000,000	1,374,533,288
	1944	10,252,560	130,358,216	1,369,275,745	25,292,090	55,000,000	1,630,586,822
	1945	7,742,985	147,554,397	1,525,668,270	25,446,212	55,000,000	1,806,882,175
	1946	6,154,119	103,365,942	1,709,606,112	42,960,011	58,333,334	1,990,782,082
Dominion Bank....	1929	7,994,871	1,890,531	107,612,958	6,009,296	15,638,582	150,041,996
	1935	6,264,324	1,343,678	97,065,461	3,234,575	14,000,000	125,952,174
	1943	2,034,641	20,655,165	175,693,225	2,897,163	14,000,000	221,739,145
	1944	1,394,166	24,601,509	207,799,067	3,554,833	14,000,000	256,941,539
	1945	1,082,521	26,596,644	239,763,242	6,339,955	14,000,000	295,590,782
	1946	851,661	20,852,310	278,694,006	6,859,378	14,500,000	331,057,224
Banque Canadienne Nationale........	1929	11,796,049	3,117,266	115,948,289	1,079,893	12,598,742	153,806,492
	1935	6,660,373	1,653,758	104,903,295	1,051,327	12,000,000	127,372,211
	1943	2,378,425	14,209,723	188,838,737	2,891,033	12,000,000	220,820,779
	1944	1,751,239	18,186,869	233,807,035	2,775,445	12,000,000	269,063,320
	1945	1,127,306	24,563,045	270,067,618	3,453,767	12,000,000	311,954,331
	1946	863,453	15,478,088	318,262,723	3,977,782	12,333,333	352,389,538
Imperial Bank of Canada..........	1929	10,150,422	4,484,691	110,927,178	3,602,427	15,000,000	146,916,789
	1935	6,704,185	3,757,551	106,821,368	2,803,772	15,000,000	136,675,412
	1943	2,171,851	47,717,792	189,051,656	4,480,094	15,000,000	261,512,239
	1944	1,513,474	56,797,922	227,432,798	4,476,631	15,000,000	308,214,905
	1945	1,238,610	62,002,499	267,764,839	5,388,189	15,000,000	356,125,943
	1946	1,046,999	40,674,465	319,223,972	7,334,188	15,000,000	389,891,738
Weyburn Security Bank[1]...........	1929	511,116	138,064	4,415,648	45,729	774,560	6,258,719
Barclays Bank (Canada)........	1929[2]	108,607	Nil	493,097	2,844,367	1,000,000	4,449,695
	1935	289,337	138,598	6,196,018	5,078,168	2,250,000	14,049,157
	1943	546,907	4,355,693	16,169,431	4,720,678	2,250,000	28,916,250
	1944	401,680	4,761,778	18,187,604	4,224,173	2,250,000	31,136,212
	1945	202,085	4,536,331	21,042,460	4,529,209	2,250,000	34,004,638
	1946	127,313	3,549,553	21,440,646	4,447,088	2,250,000	33,357,008
Totals.........	**1929[2]**	**178,291,030**	**102,352,044**	**2,594,395,813**	**140,477,064**	**287,905,767**	**3,503,408,865**
	1935	**125,644,102**	**64,791,170**	**2,361,969,753**	**49,098,624**	**278,250,000**	**2,946,200,352**
	1943	**50,230,204**	**521,251,596**	**4,071,085,109**	**86,440,021**	**282,250,000**	**5,131,472,532**
	1944	**37,056,187**	**569,668,148**	**4,852,634,830**	**108,493,730**	**282,250,000**	**5,971,693,095**
	1945	**28,636,174**	**652,648,089**	**5,507,349,887**	**118,080,697**	**282,250,000**	**6,720,867,676**
	1946	**23,172,717**	**483,322,212**	**6,288,232,941**	**147,299,287**	**290,166,667**	**7,414,146,084**

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[1] Absorbed by the Imperial Bank of Canada, May 1, 1931. [2] Four-month averages; bank commenced business in September, 1929. The grand totals for 1929 are, however, twelve-month averages for all banks.

Earnings of Chartered Banks.—The chartered banks of Canada are for the most part Dominion-wide institutions, doing business in all parts of the country. Their earnings, therefore, reflect with very considerable accuracy the fluctuations of general business.

18.—Net Profits of Chartered Banks and Rates of Dividend Paid, for Their Business Years Ended 1941-46

Bank	Net Profits	Dividend Rate	Net Profits	Dividend Rate	Net Profits	Dividend Rate
	1941		1942		1943	
	$	p.c.	$	p.c.	$	p.c.
Bank of Montreal	2,937,026	8	2,783,018	8–6	2,802,834	6
Bank of Nova Scotia	1,480,602	12	1,400,262	12–10	1,252,962	10
Bank of Toronto	1,121,556	10	964,729	10	829,807	10
Provincial Bank of Canada	241,434	6	231,013	6–5	210,069	5
Canadian Bank of Commerce	2,409,158	8	2,327,348	8–6	2,044,334	6
Royal Bank of Canada	2,810,928	8	2,675,123	8–6	2,656,289	6
Dominion Bank	704,322	10	665,990	10–8	659,249	8
Banque Canadienne Nationale	686,351	8	651,815	8–6	601,266	6
Imperial Bank of Canada	722,190	10	686,149	10–8	686,934	8
Barclays Bank (Canada)	[1]	–	[1]	–	[1]	–
Totals, Net Profits	**13,113,567**	–	**12,385,447**	–	**11,743,744**	–
	1944		1945		1946	
	$	p.c.	$	p.c.	$	p.c.
Bank of Montreal	2,694,300	6	2,934,681	6	4,487,782	8[2]
Bank of Nova Scotia	1,045,420[3]	10	1,304,497	10	1,588,455	10–12[4]
Bank of Toronto	996,271	10	935,137	10	1,194,458	12
Provincial Bank of Canada	208,542	5	239,960	5	246,284	5–6[4]
Canadian Bank of Commerce	2,046,972	6	2,195,527	6	2,851,240	6–8[4]
Royal Bank of Canada	2,532,183	6	3,098,847	6	4,020,895	8
Dominion Bank	665,974	8	653,241	8	860,768	8–10[4]
Banque Canadienne Nationale	471,027	6	478,073	6	506,590	7
Imperial Bank of Canada	695,336	8	701,445	8	717,300	10
Barclays Bank (Canada)	[1]	–	[1]	–	[1]	–
Totals, Net Profits	**11,356,025**	–	**12,541,408**	–	**16,473,772**	–

[1] Not reported. [2] Includes extra distribution of 15 cents a share. [3] Ten months only, due to change in Bank's fiscal year end. [4] Increased.

Branches of Chartered Banks.—During the period from 1881 to 1901, the number of chartered banks doing business in Canada under the Bank Act remained almost the same (36 in 1881 and 1891, and 34 in 1901), but during the present century there has been in banking, as in industry, an era of amalgamations, the number of banks having dropped to 25 in 1913 and to 10 in 1931. That this has been far from involving a curtailment of banking facilities is seen in Table 9, which shows the development of the banking business since 1927, and in Table 19, which compares the number of branch banks existing in Canada at different periods, and indicates a growth from 123 in 1868 to 4,676, inclusive of sub-agencies, at Dec. 31, 1920. As at Dec. 31, 1944, the total stood at 3,087 (exclusive of 132 branches and 3 sub-agencies in other countries) the reduction having resulted from the closing of some unprofitable branches, and also from contractions brought about by war-time conditions. By Dec. 31, 1946, the total had increased to 3,219 (excluding 133 branches and three sub-agencies outside Canada).

19.—Branches of Chartered Banks in Canada, by Provinces, as at Dec. 31, 1868, 1902, 1905, 1920, 1926, 1930, 1940 and 1943-46

Province	1868	1902	1905	1920[1]	1926[1]	1930[1]	1940[1]	1943[1]	1944[1]	1945[1]	1946[1]
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
P. E. Island	Nil	9	10	41	28	28	25	23	23	23	23
Nova Scotia	5	89	101	169	134	138	134	126	126	126	127
New Brunswick	4	35	49	121	101	102	97	93	93	94	96
Quebec	12	137	196	1,150	1,072	1,183	1,083	1,041	1,042	1,045	1,067
Ontario	100	349	549	1,586	1,326	1,409	1,208	1,092	1,091	1,098	1,117
Manitoba	Nil	52	95	349	224	239	162	148	148	148	151
Saskatchewan	“	30	87	591	427	447	233	213	213	214	226
Alberta				424	269	304	172	163	164	168	190
British Columbia	2	46	55	242	186	229	192	180	180	184	216
Yukon and N.W.T.	Nil	Nil	3	3	3	4	5	5	7	6	6
Totals	**123**	**747**	**1,145**	**4,676**	**3,770**	**4,083**	**3,311**	**3,084**	**3,087**	**3,106**	**3,219**

[1] Includes sub-agencies for receiving deposits for the banks employing them.

20.—Branches of Individual Canadian Chartered Banks in Each Province and Outside Canada, as at Dec. 31, 1946

Note.—This table does not include sub-agencies which numbered 637 in 1946, including 3 outside Canada.

Bank	P.E. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Outside Canada	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Bank of Montreal	1	12	13	100	170	25	35	44	47	1	11	459
Bank of Nova Scotia	8	36	35	21	115	6	19	10	14	Nil	37	301
Bank of Toronto	Nil	Nil	Nil	16	110	12	24	11	13	1	Nil	187
Provincial Bank of Canada	2	“	9	108	12	Nil	Nil	Nil	Nil	Nil	“	131
Canadian Bank of Commerce	6	16	6	60	206	32	45	40	58	3	12	484
Royal Bank of Canada	5	61	21	72	193	52	70	48	47	Nil	70	639
Dominion Bank	Nil	Nil	1	10	89	11	5	3	4	“	2	125
Banque Canadienne Nationale	“	“	Nil	204	10	3	1	Nil	Nil	“	1	219
Imperial Bank of Canada	“	“	“	4	104	6	23	21	12	1	Nil	171
Barclays Bank (Canada)	“	“	“	1	1	Nil	Nil	Nil	Nil	Nil	“	2
Totals	**22**	**125**	**85**	**596**	**1,010**	**147**	**222**	**177**	**195**	**6**	**133**	**2,718**

The number of branches of Canadian banks doing business outside Canada increased rapidly during the War of 1914-18 and the early post-war period, rising to a total of 206 in 1921. The number gradually declined to 131 branches in 1945, and in 1946 was 133.

21.—Branches of Individual Canadian Chartered Banks Outside Canada, with their Locations, as at Dec. 31, 1945 and 1946

Bank and Location	1945	1946	Bank and Location	1945	1946
	No.	No.		No.	No.
Bank of Montreal—			Royal Bank of Canada—		
Newfoundland	6[1]	6[1]	Newfoundland	8	8
England	2	2	England	2	2
United States	3	3	British West Indies	11	11
Bank of Nova Scotia—			United States	1	1
Newfoundland	13	14	Cuba	17	17
England	1	1	Puerto Rico	3	3
British West Indies	11[2]	11[2]	Central and South America	21	21
Dominican Republic	1	1	Haiti	1	1
United States	1	1	Dominican Republic	5	5
Cuba	7	7	France	–	1
Puerto Rico	2	2	Dominion Bank—		
Canadian Bank of Commerce—			England	1	1
Newfoundland	2	2	United States	1	1
England	1	1	Banque Canadienne Nationale—		
British West Indies	4	4			
United States	5	5	France	1	1
			Totals	**131[3]**	**133[3]**

[1] Exclusive of two sub-agencies. [2] Exclusive of one sub-agency. [3] Exclusive of three sub-agencies.

Section 6.—Government and Other Savings Banks

In a comparatively new country where capital is relatively scarce, it is natural that the banks that finance the business institutions should also absorb the bulk of the people's savings for use in promoting the business of the country. Thus, in Canada the great bulk of the current savings of the people has, in the past, been found in the savings or notice deposits of the Canadian chartered banks, the annual average figures of which are given in Table 9 of this Chapter; the 1946 average was $3,327,057,442. To-day, the Government is absorbing a large proportion of current savings for the financing of demobilization and reconstruction and the current savings of the Canadian people are going to a large extent into the purchase of life insurance, the total premiums paid in the single year 1946 aggregating $283,930,461. Nevertheless, current savings as shown by deposits in the banks are large, those in the special savings banks, although comparatively small, are none-the-less significant.

There are, at present, three distinct types of savings bank in Canada in addition to the savings departments of the chartered banks and of trust and loan companies. First, there is the Post Office Savings Bank, in which the deposits are a direct obligation of the Federal Government. Secondly, there are Provincial Government savings banking institutions in Ontario and in Alberta, where the depositor becomes a direct creditor of the province. Thirdly, there are, in the Province of Quebec, two important savings banks, the Montreal City and District Savings Bank and La Banque d'Economie de Québec, established under Dominion legislation and reporting monthly to the Department of Finance. Other agencies for the promotion of thrift are the co-operative credit unions, which encourage the regular saving of amounts too small to deposit in a bank.

Post Office Savings Bank.—The Post Office Savings Bank was established under the Post Office Act of 1867 (31 Vict., c. 10) in order to "enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the Dominion to every depositor for repayment of all money deposited by him together with the interest due thereon". Branches of the Federal Government Savings Bank under the Department of Finance were gradually amalgamated with this Bank over a period of 50 years, the amalgamation being completed in March, 1929.

22.—Financial Business of the Post Office Savings Bank, as at Mar. 31, 1941-46

NOTE.—Figures of total deposits for 1868-1917 will be found at pp. 833-834 of the 1926 Year Book and for 1918-40 at p. 978 of the 1946 edition.

Item	1941	1942	1943	1944	1945	1946
	$	$	$	$	$	$
Deposits—						
Total	22,176,633	21,671,413	24,373,991	28,296,208	33,468,799	35,537,154
Made during year	3,998,091	5,050,677	8,386,979	13,844,802	18,568,005	18,686,476
Interest on deposits	433,901	423,762	438,910	499,570	581,472	656,456
Totals, cash and interest	4,431,992	5,474,439	8,825,889	14,344,372	19,149,477	19,342,932
Withdrawals	5,355,478	5,979,658	6,123,311	10,422,155	13,977,025	17,274,578

Provincial Government Savings Banks.—Institutions for the deposit of savings are operated by the Provincial Governments of Ontario and Alberta. A similar institution was in operation in Manitoba from 1924 to 1932, when the depositors' accounts were taken over by the chartered banks.

Ontario.—In the session of 1921, the Legislature of Ontario authorized the establishment of the Province of Ontario Savings Office, and in March, 1922, the first branches were opened. Interest at the rate of 1 and 1½ p.c. per annum compounded half-yearly is paid on accounts. The deposits are repayable on demand. Total deposits on Mar. 31, 1947, were $62,027,000, and the number of depositors at that date was approximately 100,000. Twenty-two branches are in operation throughout the Province.

Alberta.—In Alberta, the Provincial Treasury receives savings deposits and issues demand savings certificates bearing interest at 1½ p.c., or term certificates for one, two, three, four or five years, in denominations of $25 and upwards, bearing interest at 2 p.c. for one or two years, 2¼ p.c. for three or four years and 2½ p.c. for five years. The total amount in savings certificates on Dec. 31, 1946, was $1,047,148 made up of $243,658 in demand certificates and $803,490 in term certificates.

In addition, savings deposits are accepted at 40 Provincial Treasury Branches throughout the Province. The total of these deposits at Dec. 31, 1946, was $11,046,967 made up of $6,981,558 bearing interest at 1½ p.c. and payable on demand, and $4,065,409 bearing interest at 2 p.c. and payable one year after deposit.

Penny Banks.—Provision was made by the Penny Bank Act (R.S.C., 1927, c. 13) for the institution of banks designed to encourage small savings by school children, although their facilities are not confined to children. The only bank established under this statute was the Penny Bank of Ontario but its operations were suspended in February, 1943, in order that the school children might concentrate on the purchase of War Savings Stamps and Certificates. The Bank is still inactive. For assets and liabilities at June 30, 1942-45, see p. 979 of the 1946 Year Book.

Other Savings Banks.—The Montreal City and District Savings Bank founded in 1846 and now operating under a charter of 1871, had on Mar. 31, 1947, a paid-up capital and reserve of $5,750,000, savings deposits of $131,779,257, and total liabilities of $138,687,872. Total assets amounted to $139,245,393, including over $118,000,000 of Dominion, provincial and municipal securities. The Caisse d'Economie de Notre-Dame de Québec, founded in 1848 under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855, and given a Dominion charter by 34 Vict., c. 7, had on Mar. 31, 1947, savings deposits of $21,358,288, a paid-up capital and reserve of $3,000,000, and total assets of $26,477,814. Under the new charter, effective Sept. 1, 1944, the name of this Bank was changed to La Banque d'Economie de Québec.

Table **23** shows the savings deposits in the Montreal City and District Savings Bank and La Banque d'Economie de Québec for the years ended Mar. 31, 1933-47.

23.—Deposits in the Montreal City and District Savings Bank and La Banque d'Economie[1] de Québec, Years Ended Mar. 31, 1933-47

NOTE.—Figures for the years 1868–1926 appear at pp. 833–834 of the 1926 Year Book; for the years 1927–32 at p. 980 of the 1946 edition.

Year	Deposits	Year	Deposits	Year	Deposits
	$		$		$
1933	68,113,501	1938	77,260,433	1943	84,023,772
1934	66,673,219	1939	81,566,754	1944	103,276,757
1935	66,496,595	1940	79,838,963	1945	122,574,607
1936	69,665,415	1941	76,391,775	1946	140,584,525
1937	73,450,133	1942	74,386,412	1947	153,137,545

[1] Formerly the Caisse d'Economie de Notre-Dame de Québec.

Credit Unions.*—Provincial credit-union legislation, in each of the Provinces, requires all credit unions to report to Provincial Governments on their annual operations. These reports are consolidated and made available to the Economics Division of the Department of Agriculture by the various provincial inspectors. As yet, little analyses of these reports on a national basis is possible because of the variation in the types of reports prepared by the provinces.

The total number of credit unions in Canada in 1945 was 2,219, an increase of 8 p.c. over 1944. Membership increased by 23 p.c. and assets by 58 p.c. Loans to members in 1945 were lower than in 1944 but decrease is considered to be the result of the use of a more uniform basis of reporting. Figures from the Province of Quebec have in the past included a sum which might be termed investment loans made to municipalities, school commissions, churches, etc. No other provincial statistics considered such investments as loans made and, therefore, the Quebec figures have been reduced to make them comparable for 1945. It is estimated that about $65,000,000 of total assets in 1945 should be considered as investment loans of which $59,000,000 is held by the Caisses Populaires in Quebec.

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* Prepared by J. E. O'Meara, M.A., Economics Division, Department of Agriculture, Ottawa.

Naturally, during the war period there was some decrease in loan demand but credit unions and their members continued their thrift programs and surplus funds were invested in Victory Bonds or in central credit unions and members financed their personal purchases of bonds through the credit union.

Co-operative credit in the Province of Quebec takes a somewhat different form from such organizations in other provinces. It dates back to 1940, when what are known as "Les Caisses Populaires", or People's Banks, were begun with the establishment of "La Caisse Populaire" at Lévis. The following principles were adopted: lending money only for approved purposes to carefully selected members in a restricted area; limited liability; issuing shares of small amount payable by instalments and withdrawable; and distribution of profits. These banks are for the most part established in agricultural districts. Loans are made to purchase agricultural implements at cash prices, to increase farm live stock, to improve farm buildings, to tide over periods of depression, to pay off debts, and for various similar purposes. The loans, though considered 'short credit', are for longer periods than are usual in ordinary commercial transactions because agricultural operations necessarily extend over longer periods than those of trade. They may be for 12, 15, or even 24 months, in order to give the farmer time to realize on his products.

In later years, other co-operatives such as the Quebec League and the Montreal Federation have carried on business but the great majority of loans in Quebec are still made by the Fédération des Caisses Populaires Desjardins.

24.—Summary Statistics of Credit Unions, by Provinces, 1945 Financial Year, with Totals for 1940-44

NOTE.—The credit union financial year of the provinces end on the following dates: P.E.I., N.S. and N.B., Sept. 30; Que., Ont., Man., Sask., Alta. and B.C., Dec. 31.

Province	Credit Unions Chartered	Credit Unions Reporting	Members	Total Assets	Shares	Deposits	Loans Granted to Members in Latest Financial Year	Loans Granted Since Inception
	No.	No.	No.	$	$	$	$	$
P.E.I.	52	52	8,239	457,202	323,187	111,958	250,218	1,081,715
N.S.	218	218	33,645	2,567,055	2,315,909	70,250	1,723,097	9,764,292
N.B.	155	148	32,168	2,614,561	2,340,024	126,929	1,345,698	6,074,410
Que.[1]—								
A	908	908	371,211	119,089,459[2]	7,367,379	107,213,042	25,000,000[3]	209,735,698[4]
B	15	9	2,624	552,822	114,330	186,414	173,999	781,782
C	9	9	11,486	5,362,558	467,324	4,648,976	1,116,797	1,116,797
Ont.	266	248	53,728	6,893,683	2,894,638	3,324,558	4,658,071	24,644,455
Man.	100	97	16,616	1,419,972	563,740	721,784	1,303,575	3,331,833
Sask.	172	172	25,563	3,715,813	2,012,441	1,303,599	2,488,964	6,060,609
Alta.	179	169	18,128	1,512,583	1,127,912	280,137	1,549,792	4,109,037
B.C.	145	145	17,386	1,705,181	1,433,914	147,646	1,595,426	3,667,006
Totals, 1945	**2,219**	**2,175**	**590,794**	**145,890,889**	**20,960,798**	**118,135,293**	**41,205,637**[5]	**270,367,634**
1944	**2,051**	**1,993**	**478,841**	**92,574,440**	**13,011,976**	**75,694,723**	**53,008,826**[5]	**228,922,559**
1943	**1,780**	**1,759**	**374,069**	**69,219,654**	**10,057,850**	**15,444,319**	**32,196,637**	**174,752,099**
1942	**1,486**	**1,445**	**295,984**	**43,971,925**	**7,141,756**	**22,703,312**	**17,463,545**	**142,555,462**
1941	**1,314**	**1,291**	**238,463**	**31,230,813**	**5,764,514**	**33,644,782**	**11,486,827**	**125,091,917**
1940	**1,167**	**1,144**	**201,137**	**25,069,685**	**4,064,206**	**55,522,985**	**9,219,238**	**113,605,090**

[1] A—Fédération des Caisses Populaires Desjardins (see text above). B—Quebec League. C—Montreal Federation. [2] Assets, shares and deposits of caisses regionales not included. [3] Estimated loans to members only, not including investment loans. [4] Includes approximately $52,250,000 investment loans since 1926. [5] Does not include investment loans. [6] Includes $20,006,340 investment loans by Caisses Populaires in 1944.

Canadian credit unions increased their loaning operations each year during the War. Total investments (mostly in Victory Bonds) also increased along with loans to members. This is explained, probably by the large number of Canadian credit unions serving farmers and rural areas, where credit needs for financing farm operations remained relatively constant compared to those of urban dwellers and industrial workers.

Purposes for which Loans are Made.—It is difficult from the data available to analyse the purposes for which loans are made by credit unions. Twelve unions in Alberta, however, submitted data from which a partial analysis has been made. Loans made by these unions in 1945, are classed as urban or rural and it was found that $73,274 was lent to rural borrowers of which 29 p.c. went for payments on farm lands and buildings, 22 p.c. for farm machinery, 20 p.c. for live stock and feed and 18 p.c. for farm supplies. Of urban loans, the majority (between 37 p.c. and 38 p.c.) were made for home improvements and 31 p.c. for payments on lands and buildings. For all credit unions in the Province, loans totalling $1,549,792 were made; for the 7,845 borrowers, the average was $197·55.

Federations and Services.—Nearly all credit unions in Canada are united or joined at the provincial level by federations or leagues. Basically, these groups are formed to effect savings by the co-operative purchase of supplies and in many cases to provide legal, accounting and educational services. In each province there is a central credit society which receives surplus funds of individual unions and makes them available to other unions and co-operative associations. In some Provinces, this function is performed by loan and deposit departments of the provincial leagues while others have established a special credit union for credit unions. In Quebec there are eight such "caisses regionales" to provide regional service for member "caisses". Much work has been done during the war years to strengthen these federations and leagues and from this work has grown an increase in activities which provide services other than provision of credit-union supplies. All provincial leagues, with the exception of the Quebec Federation and the Montreal Federation, are affiliated with the Credit Union National Association of the United States. Through this Association plans are available for the bonding of officials and treasurers and also for insuring loans to members and members' savings. These services are provided in Canada through a representative at Hamilton, Ont. In Quebec, bonding and burglary and other types of insurance are provided for "caisses populaires" through the "Société d'Assurance des Caisses Populaires".

Another development has been the organization and incorporation of the Co-operators' Fidelity and Guarantee Association which is designed to write honesty and faithful performance bonds for credit union treasurers and co-operative officials. The Association in now operating in Ontario.

Recent Developments.—Two important new credit-union organizations made their appearance in November, 1945; the Canadian Credit Union Federation in Winnipeg and the Fédération des Caisses Desjardins in Montreal.

The Canadian Credit Union Federation is designed to do, on a national basis what is being done by the provincial federations and leagues. It will keep statistics and records, look after bonding, act as Canadian agent for CUNA (Credit Union National Association of the United States) Mutual Insurance Society and act as a clearing house for and co-ordinate educational and promotional programs. The Federation will finance itself through assessment on the provincial leagues and will also receive substantial assistance from CUNA. In May, 1946, this Federation was recognized by CUNA and Canada was elected to a vice-presidential seat on the executive committee. All Canadian leagues now affiliated with CUNA will now be included in the Canadian vice-presidential area rather than with contiguous United States areas as heretofore. Provision has been made for the inclusion of representatives of every provincial league and federation in the Dominion.

The Montreal Fédération des Caisses Desjardins was organized under the provisions of Sect. 49 of the Quebec Co-operative Syndicates Act. It consists of nine caisses populaires on the island of Montreal all of which formerly were members of the Fédération des Caisses Populaires Desjardins whose headquarters are at Lévis.

Legislation.—Many provincial Acts concerning credit unions were amended during the year in the light of operating experience but there were no major changes affecting policy. The most important legislative change occurred in Manitoba where a new Act respecting credit union societies was assented to on Apr. 13, 1946. This new Act repeals Part VIII of the Companies Act under which credit unions were formerly incorporated.

Taxation.—Following closely the recommendations of the MacDougall Royal Commission on Co-operatives, amendments to the Dominion Income War Tax Act which were passed in August, 1946, continued the exemption from taxation formerly accorded all credit unions and also included federations of credit unions which have as members co-operative associations, churches or schools, etc. The exemption in all cases is contingent on the society or federation deriving its revenue primarily from loans to members.

Section 7.—Foreign Exchange

Subsection 1.—Exchange Rates

The Canadian dollar, adopted as Canada's currency in 1857, was equivalent to 15/73 of the pound sterling; in other words, the pound was equal to $4·866 in Canadian currency at par, and remained so, with minor variations between the import and export gold points representing the cost of shipping gold in either direction, until the outbreak of the War of 1914-18. During the first eleven years after Confederation, the Canadian dollar was at a premium in the United States, as the United States dollar was not, after the Civil War, redeemable in gold until 1878. From the latter date, the dollar in the two countries was equivalent at par, and variation was only between the import and export gold points or under $2 per $1,000.

At the outbreak of the War of 1914-18, both the pound sterling and the Canadian dollar were removed from the gold standard, and fell to a discount in New York. However, this discount was 'pegged' or kept at a moderate percentage by sales of United States securities previously held in the United Kingdom, by borrowing in the United States and, after the United States entered the War, by arrangement with the United States Government. After the War, when the exchanges were 'unpegged' about November, 1920, the British pound went as low as $3·18 and the Canadian dollar as low as 82 cents in New York. In the course of the next year or two, exchange returned practically to par, and the United

Kingdom resumed gold payments in April, 1925, and Canada on July 1, 1926. From then until 1928 the exchanges were within the gold points, but in 1929 the Canadian dollar again fell to a moderate discount in New York. The dislocation of exchange persisted, with the exception of a few months in the latter half of 1930, into 1931. Dollar rates were below the gold export points, however, only for a few scattered intervals.

The 1942 Year Book at pp. 829-830 deals with the pre-war position of Canadian exchange from September, 1931, to the outbreak of War.

At the beginning of the War of 1939-45 sterling and Canadian funds, like those of the other initial belligerents, fell to a discount at New York. The pegged official rates remained unchanged throughout the War. On July 5, 1946, the Canadian Government devalued the United States dollar in relation to the Canadian dollar bringing it to parity with the former. A corresponding adjustment was made to sterling, the rate being established at $4·02 to the pound.

Subsection 2.—The Foreign Exchange Control Board*

Wartime controls exercised by the Foreign Exchange Control Board are dealt with on pp. 833-835 of the 1941 Year Book and at pp. 830-833 of the 1942 edition. In March, 1946, the Board published a report covering the main aspects of its operations from September, 1939, to the end of 1945, a summary of which may be found at pp. 981-983 of the 1946 Year Book. In April, 1947, the Board's Report covering operations in 1946 revealed that Canada's gold and United States dollar reserves totalled $1,245,000,000 at the end of that year, a decline of $263,000,000 from 1945.

Relationship of the Board's Functions to the Balance of International Payments.—The basic factor affecting the Canadian exchange position is, of course, the balance of international payments. This subject is dealt with in detail in the Foreign Trade Chapter, at pp. 901-911. In 1946, the flow of Canadian import and export trade maintained the traditional pattern of a large import surplus from the United States and a large export surplus to the United Kingdom and Western Europe. The current account deficit in transactions with the United States reached an all-time high of $603,000,000: however, $237,000,000 of this deficit was covered by gold and United States dollars received in transactions with other countries. Inflows of capital to Canada produced an additional $103,000,000 leaving $263,000,000 as the amount necessary to cover out of gold and United States dollar reserves.

Canada had a current account surplus in trade with the Sterling Area in 1946 of more than $657,000,000 (excluding Mutual Aid); $150,000,000 of this was financed by the sale of gold by the United Kingdom to Canada. The bulk of the balance was financed by net credits and advances by Canada to the United Kingdom.

Transactions with countries other than the United States and the Sterling Area showed a balance in Canada's favour of about $400,000,000. Approximately $100,000,000 of this amount represented relief and mutual aid shipments for which no payment was received; $210,000,000 was financed by Canadian export credits; and $90,000,000 was paid by countries concerned in United States dollars.

The substantial gold and United States dollar reserves which Canada had accumulated at the end of the War provided a breathing space and enabled Canada to make imports for cash and, at the same time, substantial exports on credit to assist in the reconstruction and recovery of those overseas countries whose economies were seriously impaired as a result of the War. It is of the utmost importance to Canada that the economies of its overseas customers should be restored in order that they may ultimately be able to resume mutually profitable trade on a cash basis.

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* Revised by R. H. Tarr, Secretary, Foreign Exchange Control Board, Ottawa.

Changes in Control during 1946.—The changes in control policies and methods in 1946 were of minor importance although of interest to considerable groups of the public. In September, 1946, the regulations were amended to provide that a resident having in his possession United States bank notes and coin to an amount not exceeding $100 is not required to sell them to the Board. In line with this, the exemption from permit for the export of funds by resident travellers was increased from a total of $50 to a total of $150 of which not more than $100 may be in United States currency.* In addition, a liberal policy has been followed in dealing with applications for change of residential status since June, 1944, and during 1946 the policy was further modified. Change of status is now granted in any case where the applicant has a bona fide notification of leaving Canada permanently and has obtained permanent entry to the country to which he is destined. Since March, 1946, the United Kingdom and other Sterling Area controls have ordinarily permitted the transfer to Canada of the full amount of legacies (previously restricted to £1,000) and other capital payments from Sterling Area estates to Canadian beneficiaries, as well as certain other types of capital payments which could previously be made only to blocked sterling accounts.

At the session of Parliament in 1946, the Foreign Exchange Control Act was passed to come into force on Jan. 1, 1947, and to replace and supersede on that date the Foreign Exchange Control Order passed under the War Measures Act under which exchange control was carried on from its inception in September, 1939. The Act also replaces the Exchange Fund Act, 1935, under which the Special Exchange Fund Account, in the name of the Minister of Finance, was originally established.

New Foreign Exchange Control Regulations were made on Dec. 19, 1946, to come into force at the same time as the Foreign Exchange Control Act on Jan. 1, 1947. These Regulations reflect two notable changes in general foreign exchange control policy brought about as the result of new factors arising out of steps that Canada and other nations are taking with a view to re-establishing world trade on a multilateral basis.

Under the terms of the agreement made at the time the $3,750,000,000 credit was negotiated with the United States, the United Kingdom was committed to make the current sterling receipts of other countries freely available for expenditure anywhere by July 15, 1947. Arrangements were made between Canada and the United Kingdom under which sterling became transferable on Jan. 1, 1947, between Canada and certain other countries, including the United States, in addition to countries in the Sterling Area. This meant that Canadian exporters and importers have been able, since the beginning of 1947, to trade on a sterling basis, if they wish to do so, with a number of countries in addition to those in the Sterling Area.† This does not mean that the whole of Canada's surplus with the United Kingdom is now available to offset a deficiency with other parts of the world, however, since to the extent that our exports to the United Kingdom are financed by credit, they cannot give rise to any surplus of sterling convertible into other currencies. The main significance of the arrangement to Canada is the prospect it offers that, when economic recovery in the United Kingdom has proceeded to the point where the balance of payments equilibrium has been restored, the whole of Canada's surplus from trade with the United Kingdom will again be available to meet her characteristic deficit in trade with the United States as was the case before the War. Meanwhile, this convertibility of sterling again necessitates the exercise of control over sterling transactions and transfers of Canadian dollars from Canada to the Sterling Area.

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* In May, 1947, the amount of United States banknotes and coin which a resident may hold was reduced to $10 and the exemption from permit for the export of funds by resident travellers was similarly lowered to $25 of which not more than $10 may be in United States currency.

† In August, 1947, the United Kingdom found it necessary to cancel the general arrangements which had been made for the transferability of sterling between non-sterling countries because of the drain which such arrangements were causing on her United States dollar resources. The consequence is that since that date Canadian exporters and importers are again limited generally to trading on a United States dollar basis with countries outside the Sterling Area.

The other principal change in the new Regulations arises from the extension by the Canadian Government of export credits to various European countries to assist them in overcoming their difficulties during the transitional period of re-establishing their trade. These credits were at first used largely for purchases in Canada by the foreign governments concerned. For all other exports the Canadian exporter was required to obtain payment in foreign exchange. Several of the countries, however, wished to use the credits to finance private trade and at the 1946 session of Parliament the Export Credits Insurance Act was amended to enable this to be done. In line with this, the new Foreign Exchange Control Regulations provide that exports from Canada to France, Belgium, Norway and Czechoslovakia, as well as to Sterling Area countries, may now be made for settlement either in foreign exchange as heretofore or in Canadian dollars paid from a bank account in Canada to a resident of one of those countries.

The Return to Parity of the Canadian Dollar.—In the latter part of 1946, after the return to parity of the official rate for United States dollars, the Canadian dollar was quoted at a discount in the so-called unofficial market in New York. The existence of a spread between the official rate and the rate quoted for the Canadian dollar in the unofficial market in the United States is not a new phenomenon. In June, 1940, for example, the unofficial quotation in the New York market averaged 10 p.c. lower than the official rate and for the year 1940 as a whole, it was 5 p.c. below the official rate. The most important fact about the unofficial market is that transactions in it are entirely restricted to non-residents. Any resident of Canada requiring funds for expenditure in the United States for authorized purposes is able to obtain them through the official market at the official rate. Furthermore, no residents of Canada coming into possession of United States dollars are ever authorized to convert them into Canadian dollars through the unofficial market. All foreign exchange transactions in which residents of Canada are authorized to engage, take place at official rates of exchange.

There are, however, certain types of capital payments to non-residents which, under existing arrangements, are not eligible for conversion into United States funds out of Canada's official reserves. Examples of such payments are the proceeds of permitted sales of securities by non-residents in Canada and the proceeds of maturing obligations which are payable in Canadian funds. In the light of the restricted and highly specialized nature of the unofficial market for Canadian dollars, it is clear that the rate quoted there has limited significance. All but a very small fraction of Canada's unofficial transactions take place at official exchange rates. All current account payments to non-residents may be made in foreign exchange obtained in

Canada at official rates. All Canada's current receipts from transactions with the United States dollar area (except some part of the tourist receipts) accrue in the form of foreign exchange. The significance of the unofficial market relates, therefore, mainly to capital items.

PART II.—MISCELLANEOUS COMMERCIAL FINANCE

Section 1.—Loan and Trust Companies*

The Canada Year Book, 1934-35, presents at p. 993 an outline of the development of loan and trust companies in Canada from 1844 to 1913.

The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. However, summary statistics for 1944 and 1945 of provincial companies have been supplied by those companies and are included in Table **1** in order to complete the statistics for loan and trust companies throughout Canada. It is estimated that more than 90 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with Dominion registered companies. The statistics of Tables **2** and **3** refer only to those companies operating under Dominion charter, except that, beginning with 1925, the statistics of loan companies and trust companies incorporated by the Province of Nova Scotia and brought by the laws of that Province under the examination of the Dominion Department of Insurance, have been included in Table **3** as well as those for trust companies in New Brunswick since 1934 and in Manitoba since 1938. In 1920, the Dominion Department of Insurance took over the administration of the legislation concerning Dominion loan and trust companies—the Department of Finance had previously exercised supervision of the activities of these companies.

As indicating the progress of the aggregate of loan company business in Canada, it may be stated that the book value of the assets of all loan companies increased from $188,637,298 in 1922 to $213,649,794 in 1931, or by 13·3 p.c., but declined to $197,455,071 in 1945 or by 7·6 p.c. since 1931. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same sense as company and guaranteed funds) increased from $154,202,165 in 1928 to $278,728,016 in 1945 or by 80·8 p.c. In the former year, the total of estates, trust and agency funds administered amounted to $1,077,953,643 and in the latter year to $3,117,808,409.

Functions of Loan Companies.—The principal function of loan companies is the lending of funds on first-mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings-department deposits. In the war years from 1939 to 1945 the amount invested in mortgages declined by almost $27,000,000, being practically all accounted for by an increase in the amount of bonds and stocks held. Of the loan companies operating under provincial charters, the majority conduct loan, savings and mortgage business, generally in the more prosperous farming communities.

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* Revised under the direction of G. D. Finlayson, C.M.G., Superintendent of Insurance, Department of Insurance, Ottawa.

Functions of Trust Companies.—Trust companies act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy. Such companies receive deposits, but the lending of actual trust funds is restricted by law.

Statistics of Loan and Trust Companies.—The figures of Table **1** are of particular interest in the case of trust companies. On account of the nature of their functions, they are mainly provincial institutions, their chief duties being intimately connected with the matter of probate, which lies within the sole jurisdiction of the provinces.

1.—Operations of Provincial and Dominion Loan and Trust Companies as at Dec. 31, 1944 and 1945

Item	1944			1945		
	Provincial Companies	Dominion Companies	Total	Provincial Companies	Dominion Companies	Total
	$	$	$	$	$	$
Loan Companies—						
Assets (book values)	58,728,602	130,945,859	189,674,461	63,680,642	133,774,429	197,455,071
Liabilities to the public	33,893,128	97,780,572	131,673,700	38,305,320	102,665,372	140,970,692
Capital Stock—						
Authorized	28,107,925	59,000,000	87,107,925	27,393,545	56,000,000	83,393,545
Subscribed	16,598,000	24,905,700	41,503,700	16,430,440	21,208,600	37,639,040
Paid-up	14,838,455	18,848,684	33,687,139	14,766,356	17,546,687	32,313,043
Reserve and contingency funds	8,390,996	12,834,013	21,225,009	8,564,267	12,379,195	20,943,462
Other liabilities to shareholders	1,606,023	1,414,080	3,020,103	2,044,699	1,183,175	3,227,874
Total liabilities to shareholders	24,835,474	33,096,777	57,932,251	25,375,322	31,109,057	56,484,379
Net profits realized during year	1,048,683	457,159	1,505,842	1,174,261	651,448	1,825,709
Trust Companies—						
Assets (book values)						
Company funds	61,889,195	21,284,655	83,173,850	67,028,647	22,475,024	89,503,671
Guaranteed funds	123,730,978	47,741,930	171,472,908	136,074,768	53,149,577	189,224,345
Totals, Assets	185,620,173	69,026,585	254,646,758	203,103,415	75,624,601	278,728,016
Estates, trust, and agency funds	*2,593,730,389*	*338,978,141*	*2,932,708,530*	*2,754,475,732*	*363,332,677*	*3,117,808,409*
Capital Stock—						
Authorized	51,130,000	25,050,000	76,180,000	56,987,800	25,050,000	82,037,800
Subscribed	25,270,410	13,041,570	38,311,980	26,223,510	13,458,570	39,682,080
Paid-up	24,920,033	12,311,457	37,231,490	25,050,301	12,806,849	37,857,150
Reserve and contingency funds	18,126,926	7,037,955	25,164,881	21,434,632	6,932,540	28,367,172
Unappropriated surpluses	4,524,209	1,106,345	5,630,554	4,374,392	1,266,391	5,640,783
Net profits realized during year	2,321,271	987,688	3,308,959	2,693,109	1,034,174	3,727,283

2.—Assets and Liabilities of Loan Companies Chartered by the Federal Government, as at Dec. 31, 1936-45

NOTE.—For the years 1914-24, see p. 913 of the 1937 Year Book. Figures comparable to those shown below for the years 1925-35 are given at p. 985 of the 1946 edition. The figures appearing here include loan companies chartered by the Government of Nova Scotia, but inspected by the Dominion Department of Insurance. Figures given in this table do not include small loans companies (see Sect. 2, pp. 1051-1052).

Year	ASSETS						
	Real Estate[1]	Mortgages on Real Estate	Collateral Loans	Bonds, Debentures, Stocks, and Other Company Property	Cash on Hand and in Banks	Interest, Rents, etc., Due and Accrued	Total[2]
	$	$	$	$	$	$	$
1936...........	9,770,965	97,622,787	271,660	21,175,454	3,496,046	3,928,038	137,210,511
1937...........	10,593,241	97,050,041	134,333	20,371,285	3,303,863	3,891,070	136,262,516
1938...........	10,436,985	97,104,591	112,270	20,204,905	3,714,627	3,669,841	136,139,642
1939...........	10,310,781	96,342,441	103,298	19,955,311	5,184,020	3,604,690	136,358,786
1940...........	10,256,835	93,618,467	83,334	20,295,836	4,862,808	3,750,882	133,713,412
1941...........	9,585,580	90,359,176	69,759	20,826,112	5,611,182	3,566,036	130,795,391
1942...........	9,078,029	86,545,342	344,072	21,723,698	5,023,723	3,244,175	126,662,960
1943...........	8,693,127	80,043,044	211,535	29,790,718	5,328,898	2,259,608	126,943,566
1944...........	7,326,593	73,668,635	216,488	41,864,820	6,301,334	1,311,945	130,945,859
1945...........	5,933,122	69,389,403	322,607	52,328,370	4,781,357	942,041	133,774,431

Year	LIABILITIES							
	Liabilities to Shareholders			Liabilities to the Public				
	Capital Paid Up	Reserve Funds	Total[3]	Debentures and Debenture Stock		Deposits	Interest Due and Accrued	Total[4]
				Canada	Elsewhere and Sundries			
	$	$	$	$	$	$	$	$
1936...........	19,361,368	15,262,697	36,005,271	58,918,941	14,939,518	26,250,954	860,115	101,194,543
1937...........	19,352,276	15,048,254	35,771,946	57,506,233	14,977,437	26,966,644	765,435	100,478,054
1938...........	19,340,788	14,757,224	35,478,233	57,073,555	14,959,522	27,668,490	705,622	100,655,486
1939...........	19,284,714	14,766,473	35,469,842	57,418,689	13,390,796	29,132,700	693,353	100,881,760
1940...........	19,145,919	14,262,422	34,711,441	57,579,361	12,074,573	28,276,323	678,528	98,988,451
1941...........	19,082,481	13,752,103	34,043,232	56,959,420	10,151,953	28,571,361	633,937	96,743,884
1942...........	19,038,552	13,258,225	33,524,916	55,746,073	8,269,161	27,966,674	629,124	92,976,410
1943...........	18,885,241	12,966,837	33,141,255	55,493,449	5,982,012	31,239,958	616,502	93,777,693
1944...........	18,848,684	12,834,013	33,096,778	54,350,562	3,732,950	38,749,273	648,751	97,780,572
1945...........	17,546,686	12,386,521	31,109,057	55,300,566	2,491,347	43,863,246	685,696	102,665,372

[1] Book value of real estate for companies' use and other real estate. [2] Includes other assets. [3] Includes other liabilities to shareholders. [4] Includes other liabilities to the public.

3.—Assets and Liabilities of Trust Companies Chartered by the Federal Government, as at Dec. 31, 1936-45

NOTE.—Figures for the years 1914-24 appear at pp. 914-915 of the 1937 Year Book. Figures comparable to those shown below for the years 1925-35 are given at pp. 986-987 of the 1946 edition. The figures of this table include statistics of trust companies chartered by the following Provincial Governments but brought in the stated years, under the inspection of the Dominion Department of Insurance: Nova Scotia, 1925; New Brunswick, 1934; and Manitoba, 1938.

Year	COMPANY FUNDS—ASSETS							
	Loans		Real Estate[1]	Government, Municipal, School and Other Securities Owned	Stocks	Cash on Hand and in Banks	All Other Assets Belonging to the Companies	Total Assets of the Companies
	On Real Estate	On Stocks and Securities						
	$	$	$	$	$	$	$	$
1936	5,105,167	884,014	3,304,918	3,960,552	461,014	914,439	1,744,454	16,374,558
1937	5,411,003	971,560	3,734,913	4,008,247	657,507	724,846	1,900,231	17,408,307
1938	6,116,342	901,935	4,518,886	4,423,228	1,103,090	1,020,266	2,163,727	20,247,474
1939	6,269,736	816,795	4,421,183	4,402,444	1,180,163	1,025,731	2,060,366	20,176,418
1940	6,714,158	677,384	4,206,914	4,662,449	1,221,470	951,975	1,775,209	20,209,559
1941	6,783,918	554,609	3,952,899	5,253,427	1,344,468	1,143,134	1,564,326	20,596,781
1942	6,599,744	556,527	3,466,296	5,723,054	1,416,195	1,051,448	1,377,664	20,190,928
1943	6,467,018	413,860	3,033,478	6,636,500	1,687,295	1,152,881	1,178,755	20,569,787
1944	6,056,591	438,388	2,518,320	7,732,823	2,271,356	1,263,031	1,004,146	21,284,655
1945	5,455,703	629,592	1,828,272	9,741,423	2,558,221	1,318,143	943,670	22,475,024

Year	GUARANTEED FUNDS—ASSETS						
	Loans		Government, Municipal, School, and Other Securities Owned	Stocks	Cash on Hand and in Banks	All Other Assets	Total Assets Held Against Guaranteed Funds
	On Real Estate	On Stocks and Securities					
	$	$	$	$	$	$	$
1936	20,474,810	5,748,256	7,300,519	Nil	1,199,866	733,156	35,456,607
1937	21,926,852	3,172,609	8,525,407	"	1,486,606	673,202	35,784,676
1938	21,452,863	4,025,109	9,573,096	"	1,353,753	611,322	37,016,143
1939	21,235,726	2,277,963	10,731,590	"	1,219,212	536,509	36,001,000
1940	20,325,502	2,122,552	10,907,161	"	1,618,430	508,554	35,482,199
1941	19,467,940	2,282,042	12,878,023	"	3,462,842	480,008	38,570,855
1942	18,746,799	2,082,970	14,799,546	"	1,714,675	499,783	37,843,773
1943	17,077,122	2,631,787	18,821,725	326,037	2,166,930	480,590	41,504,191
1944	16,710,530	3,483,691	23,978,699	332,430	2,772,583	463,997	47,741,930
1945	16,836,677	3,926,532	28,823,159	340,099	2,751,837	471,274	53,149,578

Year	LIABILITIES							
	Company Funds						Guaranteed Funds	
	Liabilities to Shareholders				Liabilities to the Public	Total	Principal	Total
	Capital Paid Up	Reserve Funds	Other Liabilities	Total	Taxes, Borrowed Money, etc.			
	$	$	$	$	$	$	$	$
1936	9,803,722	4,935,216	805,197	15,544,135	333,926	15,878,061	35,456,607	35,456,607
1937	10,357,757	5,311,158	542,708	16,211,623	359,026	16,570,649	35,784,676	35,784,676
1938	11,949,775	5,946,939	584,149	18,480,863	974,982	19,455,845	37,016,143	37,016,143
1939	11,789,264	6,002,488	951,071	18,742,823	609,016	19,351,839	36,001,000	36,001,000
1940	11,867,224	5,902,904	1,044,205	18,814,333	706,849	19,521,182	35,482,198	35,482,198
1941	12,253,038	6,138,528	1,000,768	19,392,334	694,442	20,086,776	38,570,855	38,570,855
1942	12,128,931	5,570,759	983,088	18,682,778	581,153	19,263,931	37,843,773	37,843,773
1943	12,171,035	6,221,929	1,297,669	19,690,633	477,717	20,168,350	41,504,191	41,504,191
1944	12,311,457	7,037,955	1,219,898	20,569,310	507,288	21,076,598	47,741,929	47,741,929
1945	12,806,849	6,932,540	1,406,667	21,146,056	1,165,706	22,311,762	53,149,577	53,149,577

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[1] Book value of real estate for companies' use and other real estate.

4.—Amount of Estates, Trust, and Agency Funds of Trust Companies Chartered by the Federal Government, as at Dec. 31, 1936-45

Note.—Figures for the years 1914-24, are given at p. 915 of the 1937 Year Book; those for the years 1925-35 at p. 987 of the 1946 edition. Headnote to Table 3 applies also to the figures of this table.

Year	Estates, Trust, and Agency Funds	Year	Estates, Trust, and Agency Funds
	$		$
1936	226,024,454	1941	268,596,524
1937	228,155,009	1942	290,630,617
1938	236,467,735	1943	313,457,551
1939	242,369,850	1944	338,978,141
1940	256,781,691	1945	363,332,677

Section 2.—Licensed Small Loans Companies and Licensed Money-Lenders

There have been incorporated in recent years, by the Parliament of Canada, three companies that make small loans, usually not exceeding $500 each, on the promissory notes of the borrowers and additionally secured in most cases by endorsements or chattel mortgages. While these companies, under their original charter powers, were permitted to make loans on the security of real estate, that power was withdrawn by the Small Loans Act, 1939.

On Jan. 1, 1940, the Small Loans Act, 1939 (3 Geo. VI, c. 23), passed by the Parliament of Canada, came into force, by which the above-mentioned small loans companies and money-lenders licensed thereunder making personal loans of $500 or less, are limited to a rate of cost of loan not in excess of 2 p.c. per month on outstanding balances, and unlicensed lenders to a rate of 12 p.c. per annum, including interest and charges of every description.

5.—Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1936-45

Note.—Figures for the years 1928-32 will be found at p. 838 of the 1942 Year Book and for the years 1933-35 at p. 988 of the 1946 edition.

Year	ASSETS			
	Loans Receivable	Cash on Hand and in Banks	Other	Total
	$	$	$	$
1936	4,145,066	214,363	32,961	4,392,390
1937	4,875,596	261,864	37,092	5,174,552
1938	4,764,032	412,594	32,182	5,208,808
1939	5,081,320	342,578	42,781	5,466,679
1940[1]	6,266,336[2]	381,061	181,806	6,829,203
1941	7,557,414	269,943	91,569	7,918,926
1942	8,485,590	246,629	328,043[3]	9,060,262
1943	9,768,506	412,429	415,431[4]	10,596,366
1944	11,548,308	542,359	507,179[4]	12,597,846
1945	13,354,915	734,583	1,911,332[5]	16,000,830

For footnotes, see end of table, p. 1052.

5.—Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1936-45—concluded

Year	LIABILITIES									
	Liabilities to Shareholders					Liabilities to the Public				Total Liabilities
	General Reserve	Reserve for Losses	Capital Paid Up	Other Liabilities	Total	Borrowed Money	Unearned Income	Other Liabilities[6]	Total	
	$	$	$	$	$	$	$	$	$	$
1936...	300,000	146,658	976,750	2,771	1,426,179	2,581,710	315,678	37,559	2,934,947	4,361,126
1937...	300,000	220,308	1,001,750	237,643	1,759,701	2,920,840	361,315	95,904	3,378,059	5,137,760
1938...	318,000	295,361	1,001,750	441,718	2,056,829	2,653,334	348,355	118,108	3,119,797	5,176,626
1939...	318,000	351,850	1,234,250	749,666	2,653,766	2,265,834	369,723	134,724	2,770,281	5,424,047
1940[1]...	18,000	421,488	1,234,250	1,233,841	2,907,579	3,708,366	Nil[7]	213,258	3,921,624	6,829,203
1941...	18,000	517,986[8]	1,234,250	1,590,941	3,361,177	4,258,853	"	298,896	4,557,749	7,918,926
1942...	18,000	576,589[8]	3,734,250	1,920,499	6,249,338	2,572,615	"	238,309	2,810,924	9,060,262
1943...	18,000	565,110[8]	3,735,000	2,393,312	6,711,422	3,570,695	"	314,249	3,884,944	10,596,366
1944...	18,000	579,270[8]	3,805,000	2,970,071	7,372,341	4,819,254	"	406,251	5,225,505	12,597,846
1945...	18,000	586,428[8]	3,965,000	4,083,179	8,652,607	7,077,840	"	270,383	7,348,223	16,000,830

[1] First year Small Loans Act in operation. [2] Not including balances other than small loans. [3] Includes $200,000 bonds, debentures and stock. [4] Includes $250,000 bonds. [5] Includes $250,000 bonds and $1,534,756 balances of loans made in amounts greater than $500. [6] Includes taxes. [7] No unearned income; since from 1940 small loans have been on an earned basis. [8] Includes business other than small loans.

The Small Loans Companies chartered by the Federal Government show a substantial increase in business for 1945 as compared with the previous year. The number of loans made to the public during the year increased from 162,242 to 180,781 or by 11·4 p.c. and the amount of such loans rose from $23,684,406 to $27,767,766. The average loan was approximately $154 compared with $146 in 1944. At the end of 1945, the loans outstanding were 117,144 to an amount of $13,354,915 or an average of $114 per loan.

Licensed Money-Lenders.—In addition to the above-mentioned small loans companies, 51 licensed money-lenders furnished annual statements of their business, showing, for 1945, total assets of $13,881,870, of which balances of small loans amounted to $7,020,509, other balances to $4,940,924, bonds, debentures and stocks to $563,244, real estate to $162,033, cash to $676,920, and other assets to $518,240. Liabilities amounted to $13,881,870, of which borrowed money accounted for $8,456,788 and paid shares and partnership capital for $3,172,049. Loans made in 1945 numbered 84,149, totalling $14,122,754 and averaging almost $168, an increase of 17·9 p.c. in number and 21·8 p.c. in the gross amount; at the end of the year there were 58,563 loans outstanding with a total of $7,020,509 averaging $120. About 40 p.c. of the loans made in 1945 were between $100 and $200. Further details of this type of business are given in the 1945 report "Small Loans Companies and Money-Lenders Licensed under The Small Loans Act, 1939", published by the Dominion Department of Insurance.

Section 3.—Sales of Canadian Bonds*

Previous editions of the Year Book have traced the sales of Canadian bonds through the interesting period covered by the War of 1914-18 and the intervening years to the outbreak of hostilities in 1939. In 1940, the first complete year of the

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* Revised from information supplied by E. C. Gould, Statistician, the *Monetary Times*.

War, total sales were far greater than in any previous year. There was a slight decrease in 1941 but in each of the years 1942 to 1945, sales were successively higher that in any previous year, whereas the 1946 total was 27·8 p.c. lower than that of 1945.

The year 1946 showed a renewal of interest in municipal and corporation sales with the figures of $140,815,491 for municipal sales and $581,499,188 for corporation sales constituting a record high. Thus, although the 1946 total of $5,853,991,129 showed a decrease in total sales from the 1945 figure of $8,104,975,794, the decrease is mostly accounted for in the decline of Dominion sales from $7,747,691,000 in 1945 to $4,974,223,850 in 1946, the trend being away from Dominion financing to financing by corporations and municipalities. Municipalities and corporations have never sold their issues on more favourable terms than during 1946, the prices offered by financial institutions and investment houses constituting a barometer of strong industrial and municipal credit. In addition, the return of the Canadian dollar to par on July 5, 1946, removed the exchange deterrent to calling issues with a New York payment feature. As a result, the volume of bonds refunded to lower rates in the Canadian market during 1946 was more than twice as large as in any previous year. A highlight of the year's bond issues in 1946 came in November with the successful flotation of a new Dominion of Canada Savings Loan. Limited to purchases by individuals only, and to not more than $2,000 for each individual purchase, the total sales of this issue, which was left open, amounted to $489,203,050 at Dec. 31, 1946. The growth of sales and applications from the time of the First War Loan of Feb. 1, 1940, to the Savings Loan of Nov. 1, 1946, is as follows:—

Date	*Purchases by Individuals*	*Purchases by Corporations*	*Total Cash Sales*	*Applications*
	$'000	$'000	$'000	No.
WAR LOANS—				
Feb. 1, 1940	132,000	68,000	200,000	178,363
Oct. 1, 1940	113,000	187,000	300,000	150,890
VICTORY LOANS—				
June 15, 1941	279,500	450,900	730,400	968,259
Mar. 1, 1942	335,600	507,500	843,100	1,681,267
Nov. 1, 1942	374,600	616,800	991,400	2,032,154
May 1, 1943	529,500	779,200	1,308,700	2,668,420
Nov. 1, 1943	599,700	775,300	1,375,000	3,033,051
May 1, 1944	641,500	763,500	1,405,000	3,077,123
Nov. 1, 1944	766,400	751,200	1,517,600	3,327,315
May 1, 1945	836,300	732,600	1,563,619[1]	3,178,275
Nov. 1, 1945	1,221,342	801,132	2,027,487[1]	2,947,636[1]
SAVINGS LOAN[2]—				
Nov. 1, 1946	534,517[3]	Nil	534,517[3]	1,266,000[4]

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[1] Department of Finance figure.

[2] Total subscriptions were limited to $2,000 for any one individual.

[3] As at Aug. 31, 1947.

[4] Approximately.

6.—Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1937-46

(From the *Monetary Times Annual*)

NOTE.—Figures for 1904-25, inclusive, are given at p. 921 of the 1933 Year Book and for the years 1926-36 at pp. 990-991 of the 1946 edition. Since 1936 much of the borrowing for the Canadian National Railways has been done directly by the Dominion and since the War the Federal Government has advanced money to both the Canadian National and Canadian Pacific Railway Companies for the purchase of equipment. For this reason the column heading "Railway" in previous Year Books has been omitted in this table and such small bond issues as have been made by the Canadian Pacific Railway have been included under "Corporation".

Year	CLASS OF BOND					
	Dominion[1]	Provincial	Municipal	Parochial and Miscellaneous	Corporation	Total
	$	$	$	$	$	$
1937	919,000,000	174,362,000	52,137,475	-	119,946,800	1,265,446,275
1938	903,491,667	118,792,000	35,154,344	-	75,442,500	1,132,880,511
1939	1,024,585,000	154,059,900	26,897,689	-	242,708,600	1,448,251,189
1940	2,080,642,200	168,820,000	25,211,093	-	25,777,000	2,300,450,293
1941	1,996,820,250	69,736,000	15,378,095	-	16,081,000	2,098,015,345
1942	4,156,074,400	96,860,000	23,563,905	-	13,988,350	4,290,486,655
1943	6,770,028,200	97,632,000	14,228,986	20,406,300	53,055,500	6,955,350,986
1944	7,319,963,900	67,153,500	113,225,635	10,612,100	92,063,900	7,603,019,035
1945	7,747,691,000	162,002,084	30,430,210	10,952,500	153,900,000	8,104,975,794
1946	4,974,223,850	114,296,800	140,815,491	43,155,800	581,499,188	5,853,991,129

Year	DISTRIBUTION OF SALES, BY COUNTRIES			
	Sold in Canada	Sold in United States	Sold in United Kingdom	Total
	$	$	$	$
1937	1,177,196,275	88,250,000	Nil	1,265,446,275
1938	1,044,038,844	40,175,000	48,666,667	1,132,880,511
1939	1,316,651,189	127,500,000	100,000	1,448,251,189[2]
1940	2,300,075,293	375,000	Nil	2,300,450,293
1941	2,087,349,345	10,666,000	"	2,098,015,345
1942	4,274,748,655	15,738,000	"	4,290,486,655
1943	6,829,229,986	126,121,000	"	6,955,350,986
1944	7,548,004,035	55,015,000[3]	"	7,603,019,035
1945	8,024,957,794	80,018,000	"	8,104,975,794
1946	5,790,339,129	63,652,000	"	5,853,991,129

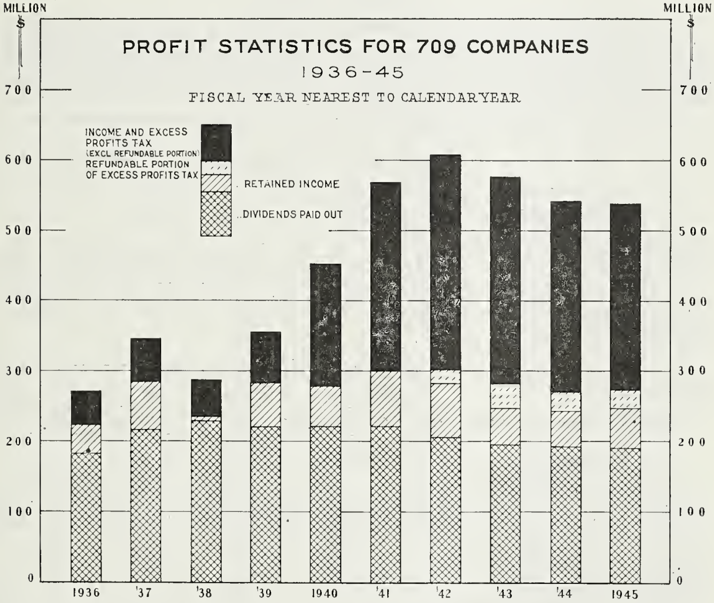
[1] Includes treasury-bill financing from 1934. [2] Includes $4,000,000 distributed elsewhere.
[3] Not including bonds purchased by Canadian dealers and later sold in the United States.

Section 4.—Operating Profits of Corporations and Net Income to Stockholders

In the 1946 Year Book at pp. 991-995, financial statistics of Canadian corporations were given for the years 1936-44. These statistics were taken from the Statistical Summary of the Bank of Canada. The study of corporation finances has been made by the Bank of Canada since 1936 but in the early years was conducted on a more restricted basis. As the study has advanced, the Bank has been able to enlarge the field by the inclusion of more and more companies and thus the results have become more representative. At the pages referred to in the 1946 Year Book the study included 686 companies—those presented below, cover 709 companies and the revisions have been carried back to the first year of the series, viz., 1936. The figures disclose how the sharply rising level of Dominion taxation has affected the business life of the country. Every effort was made by those responsible for the study to show the aggregate results on a closely comparable basis: the group of companies is wide and includes those of low as well as of high tax status.

The ordinary corporation income tax during the war years and up to Jan. 1, 1947, was 18 p.c. of net profits and there was also a minimum tax on all corporate incomes of 22 p.c. under the Excess Profits Tax Act, making an aggregate flat-rate tax of 40 p.c. Up to Jan. 1, 1946, the excess profits tax took 100 p.c. of profits in excess of 116⅔ p.c. of standard profits with 20 p.c. refundable; since Jan. 1, 1946, excess profits taxation has taken 20 p.c. (in addition to the 40 p.c. flat rate) in excess of 116⅔ p.c. of standard profits. The Budget of June 27, 1946, provided for a flat rate of 30 p.c. (to replace the 18 p.c. and 22 p.c. basic rates) and the reduction of the 20 p.c. excess profits rates to 15 p.c., as from Jan. 1, 1947.

These rates are to remain in effect to Dec. 31, 1947, after which the 15 p.c. excess profits tax is to be abolished. The Provinces of Quebec and Ontario, which have not (at September, 1947) entered into new taxation agreements with the Federal Government, have imposed flat rates of 7 p.c. each, on profits of companies operating within their boundaries.



Under the new agreements with the Dominion the provinces are permitted to impose a 5 p.c. tax on the income of a corporation attributable to its operations in the province. This tax will first apply to income of the year 1947. At the time of writing (September, 1947), seven provinces had entered into an agreement with the Dominion and all had imposed the 5 p.c. corporation income tax.

The net income left to stockholders, including the refundable excess profits tax, which was $223,000,000 in 1936 and $283,000,000 in 1939 reached a maximum of $301,000,000 in 1942 and in 1945 was actually only $273,000,000. The cash dividends paid to stockholders were much less in 1944 and 1945 than they were in 1939, although undistributed profits were, in consequence, that much larger. Depreciation items, which one would naturally expect to be much heavier in view of the intensified operations and the much greater wear and tear on plant, did not show a trend unduly out of line. They did show, however, a gradual upward movement from $117,000,000 in 1939 to $191,000,000 in 1942 and a decrease to $147,000,000 in 1945. Part of the increase in the earlier years of the War of 1939-45 was accounted for by the increased capital investment in plant during those years. This latter item was $98,000,000 in 1939 and $155,000,000 in 1941, after which it decreased to $77,000,000 in 1943 and was up again to $150,000,000 in 1945.

7.—Financial Statistics Showing Source and Use of Funds for 709 Industrial Companies, 1936-45

(In Millions of Dollars)

Note.—The sample includes all those companies with 1941 assets over $200,000 for which consistent reports were available in sufficient detail for the period 1936-45. This statement, compiled by the Bank of Canada, is designed to show net cash received from all sources and paid out for all purposes: revaluations or purely bookkeeping transactions which affect items of the balance sheet, particularly plant, property and equipment, preferred and common stock outstanding and, in a few instances, funded debt, are not reflected in the statement. Figures are for the respective fiscal years ended nearest to Dec. 31 of the year stated.

Item	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Source of Funds										
Net income to stockholders (including refundable excess profits tax)	223	285	235	283	278	300	301	281	270	273
Cash dividends	−182	−216	−229	−220	−221	−221	−205	−194	−192	−190
Undistributed profits (including refundable excess profits tax)	41	69	6	63	57	79	96	87	78	83
Depreciation charges[1]	106	113	110	117	140	170	191	185	157	147
Other non-cash charges against current income[2]	4	2	2	3	1	4	3	2	2	2
Totals, Funds from Current Income	151	184	118	183	198	253	290	274	237	232
Issue of common stock	10	15	14	9	9	6	4	−1	8	20
Totals, Net Sources of Funds	**161**	**199**	**132**	**192**	**207**	**259**	**294**	**273**	**245**	**252**
Use of Funds										
Investment in plant, property and equipment	−89	−135	−100	−98	−121	−155	−126	−77	−98	−150
Investment in inventories	−37	−56	20	−51	−121	−138	−18	−52	43	19
Investment in other companies	−7	−6	18	−23	5	-	7	3	−4	−3
Investment in refundable excess profits tax	-	-	-	-	-	-	−20	−34	−28	−26
Redemption of funded debt	−13	−16	−16	−16	−22	−25	−26	−14	−22	7
Redemption of preferred stock	−2	−2	−1	5	−2	−2	-	−5	−2	−10
Increase in miscellaneous liabilities (less miscellaneous assets)[3]	−11	−4	−15	−8	13	15	15	-	−19	−40
Totals	−159	−219	−94	−191	−248	−305	−168	−179	−130	−203
Increase in working capital, excluding inventories	−2	20	−38	−1	41	46	−126	−94	−115	−49
Totals, Net Uses of Funds	**−161**	**−199**	**−132**	**−192**	**−207**	**−259**	**−294**	**−273**	**−245**	**−252**

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[1] Includes depletion and deferred development. [2] Includes amortization of bond discount.
[3] After adjustment relating to tax accruals and other transactions of previous years.

It is seen in Table 8 that income and excess profits taxes, which absorbed an average of less than 18 p.c. of the net taxable profits in the pre-war years 1936 to 1938, increased this proportion to no less than 49·4 p.c. in 1945.

8.—Summary of Profit Statistics for 709 Industrial Companies, 1936-45

(In Millions of Dollars)

Note.—Compiled by the Bank of Canada. The sample includes all those companies with 1941 assets over $200,000 for which consistent reports were available from 1936-45. The accounts of certain companies which were available in some or all of these years were not comparable throughout the period and had to be excluded. The material is, of course, subject to all the limitations and qualifications which apply to the basic accounting statements. Figures are for the respective fiscal years ended nearest to Dec. 31 of the year stated.

Item	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Net operating profit (before depreciation)[1]	379	455	393	473	598	740	805	765	699	684
Depreciation[2]	−106	−113	−110	−117	−140	−170	−191	−185	−157	−147
Investment and other non-operating income (net)	47	50	48	44	40	42	36	38	40	42
Bond interest (including exchange and amortization of discount)	−49	−47	−45	−45	−46	−44	−43	−42	−41	−39
Net profit before income and excess profits tax provision[1]	271	345	286	355	452	568	607	576	541	540
Income and excess profits tax provision (excluding refundable portion)	−48	−60	−51	−72	−174	−268	−306	−295	−271	−267
Net Income to Stockholders[1]	**223**	**285**	**235**	**283**	**278**	**300**	**301**	**281**	**270**	**273**
Forced savings (refundable portion of excess profits tax)	-	-	-	-	-	-	−20	−34	−28	−27
Net Income Available for Dividends[1]	**223**	**285**	**235**	**283**	**278**	**300**	**281**	**247**	**242**	**246**
Net income paid out in cash dividends	182	216	229	220	221	221	205	194	192	190
Undistributed income (excluding forced savings)[1]	41	69	6	63	57	79	76	53	50	56

[1] For purposes of comparability any special capital charges made against income account in company reports have been added back as well as "contingent" and "general" reserves. Special inventory reserves (amounting to 0·5, 0·5, 0·3, 1·7, 5·4, 10·7, 6·2, 3·5, 4·3 and −1·8 in the years 1936-45, respectively), whether shown by the company in operating expenses or as an adjustment to earned surplus, have been deducted in arriving at net operating profit. [2] Includes deferred development and depletion provision amounting to 7·8, 10·6, 10·2, 9·6, 10·3, 10·3, 9·9, 8·4, 8·6 and 8·4 in the years 1936-45, respectively.

The net operating profits before depreciation reached a peak in 1942. Comparing 1937, as a normal year, with the peak year, the increase amounted to 77 p.c. Deducting depreciation, investment and other non-operating income, and bond interest the aggregate amount left before taxation showed a gain of 75·9 p.c., in the same comparison, but after income and excess profits provision the percentage of net income available to stockholders showed only a 5·6 p.c. increase.

The following statement brings together, for each of the years covered in Table 8, the proportion of tax to profits made and the trend of net profits. This clearly shows that wartime industry in Canada was not permitted to benefit in the way of profits from the increased value of business that resulted from the War.

Year	*Net Profit*[1]	*Income and Excess Profits Tax Provision*[2]	*P.C. of Taxes Paid to Profits Shown*	*Net Profits after Taxes*
	$'000,000	$'000,000	p.c.	$'000,000
1936	271	48	17·7	223
1937	345	60	17·4	285
1938	286	51	17·8	235
1939	355	72	20·3	283
1940	452	174	38·5	278
1941	568	268	47·2	300
1942	607	306	50·4	301
1943	576	295	51·2	281[3]
1944	541	271	50·1	270[3]
1945	540	267	49·4	273[3]

[1] After depreciation, bond interest and other charges. [2] Exclusive of refundable tax portion. [3] Including refundable tax portion.

Analysis by Industries.—The greatest absolute increase was shown by the pulp and paper industry where the net income increased from $1,300,000 in 1936 to $15,800,000 in 1945. Other substantial increases were recorded by the machinery industry, retail trade and service, iron, steel and products, and drink. Of the relatively few industries showing decreases, the outstanding example was gold mining where net income decreased from $38,500,000 in 1936 to $14,300,000 in 1945.

As was to be expected, the profits when analysed by industries followed similar trends as the income by industries though in more exaggerated form. For instance, the profits of the machinery industry showed an increase of no less than $36,200,000, pulp and paper companies $29,700,000, drink $26,400,000, retail trade and service $21,900,000, and iron, steel and products $18,400,000. The profits of gold mines decreased over the period by $25,400,000.

9.—Net Income of 709 Industrial Companies, by Industries, 1936-45

(In Millions of Dollars)

Note.—Figures are for the respective fiscal years ended nearest to Dec. 31 of the year stated.

Industry	No. of Companies	1936	1937	1938	1939	1940	1941	1942[1]	1943[1]	1944[1]	1945[1]
Grain mill products	7	1·3	1·4	−0·2	2·1	2·2	2·0	1·9	2·6	2·8	2·6
Food	52	8·8	8·5	8·5	14·5	10·5	11·3	12·6	12·5	13·0	12·2
Drink	15	6·5	7·2	5·8	6·8	5·4	6·9	8·2	7·6	9·4	12·3
Tobacco	3	6·7	7·0	7·0	7·2	6·7	6·4	6·6	6·6	6·6	6·8
Leather	14	0·6	0·7	0·4	0·9	0·8	0·6	1·0	0·9	1·2	1·2
Rubber	7	1·7	1·6	2·3	2·4	2·3	3·2	4·9	4·1	3·6	3·9
Textiles (primary)	37	7·1	6·8	4·7	9·9	8·9	10·2	11·0	9·0	10·4	9·5
Clothing	32	1·0	1·1	–	1·7	1·5	1·9	2·4	2·3	2·6	2·8
Wood products (incl. logging)	21	1·1	1·4	0·8	1·7	1·4	1·6	1·7	1·6	1·2	1·9
Pulp and paper	25	1·3	6·7	0·3	7·7	15·4	16·7	13·0	12·2	14·4	15·8
Paper products	26	1·5	2·2	1·8	2·0	1·9	2·4	2·5	2·3	2·4	2·4
Printing and publishing	14	1·1	1·4	1·1	1·4	1·2	1·2	1·1	1·2	1·3	1·5
Iron, steel and products (excl. machinery)	55	6·1	11·2	8·2	13·0	12·4	14·1	15·4	15·1	13·8	12·6
Machinery	60	5·9	12·6	11·0	8·8	13·2	18·5	22·4	20·0	19·1	17·6
Electrical machinery and equipment	27	4·2	7·3	6·1	6·1	6·7	7·6	8·9	8·3	9·2	7·5
Gold mining	39	38·5	40·4	43·4	43·3	40·7	36·7	29·1	22·4	16·4	14·3
Other non-ferrous metals	18	59·5	85·0	56·6	68·6	67·4	74·1	73·0	68·1	58·5	57·1
Non-metallic minerals (excl. fuels)	23	1·8	4·3	4·6	5·1	4·8	5·2	5·6	4·3	3·7	5·0
Coal and natural gas	16	3·8	4·0	3·9	4·6	4·2	3·8	3·6	3·4	3·5	3·9
Petroleum	11	30·2	33·1	30·8	27·3	23·0	21·5	20·0	22·0	21·7	23·0
Chemicals	29	8·3	9·9	9·0	12·2	11·0	11·4	10·3	9·1	9·9	10·5
Paints and polishes	13	0·9	1·0	0·7	1·3	1·3	1·3	1·5	1·4	1·5	1·6
Wholesale trade and service	67	3·2	3·9	3·0	4·8	4·5	4·8	5·3	5·7	5·0	6·2
Retail trade and service	34	3·3	4·9	4·8	5·7	5·6	6·8	7·4	7·9	9·2	10·3
Electric utilities	23	11·1	13·3	12·8	13·1	13·4	14·3	16·1	16·3	15·4	15·6
Communications	6	6·9	7·7	8·0	8·1	8·2	9·8	9·9	9·3	9·5	10·2
Transportation and storage	20	0·1	0·8	1·2	1·4	2·2	4·0	3·4	2·6	2·6	2·8
Grain elevators	15	0·7	−0·5	−1·5	0·8	1·6	2·0	1·8	2·6	2·5	2·0
Totals	**709**	**223·2**	**284·9**	**235·1**	**282·5**	**278·4**	**300·3**	**300·6**	**281·4**	**270·4**	**273·1**

[1] Includes the refundable portion of the excess profits tax, amounting to 19·9, 33·7, 28·3 and 27·2 in the years 1942–45, respectively.

10.—Profits of 709 Industrial Companies before Deduction of Income and Excess Profits Taxes, by Industries, 1936-45

(In Millions of Dollars)

NOTE.—Figures are for the respective fiscal years ended nearest to Dec. 31 of the year stated.

Industry	No. of Companies	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945
Grain mill products	7	1·6	1·6	–	2·5	3·2	3·3	3·8	6·9	5·3	4·9
Food	52	11·0	10·5	10·6	19·4	17·6	22·3	26·3	28·9	30·5	28·5
Drink	15	8·0	9·0	7·3	8·5	9·1	13·2	17·0	17·2	23·4	34·4
Tobacco	3	7·7	8·0	8·0	8·2	9·1	9·7	11·5	10·8	10·6	11·6
Leather	14	0·7	0·8	0·5	1·2	1·2	1·5	2·4	2·4	2·5	2·4
Rubber	7	2·2	2·0	2·8	2·9	3·6	7·1	11·2	9·9	7·8	8·7
Textiles (primary)	37	8·7	8·3	5·8	13·0	20·7	30·6	30·6	18·7	19·8	18·7
Clothing	32	1·3	1·4	0·2	2·2	3·3	4·2	6·2	6·2	6·7	6·6
Wood products (incl. logging)	21	1·4	1·9	1·0	2·1	3·3	3·8	4·3	4·2	5·4	5·6
Pulp and paper	25	2·2	8·7	1·5	10·6	29·0	38·4	26·5	27·2	31·2	31·9
Paper products	26	1·8	2·6	2·1	2·4	3·7	4·9	5·7	6·0	6·0	6·1
Printing and publishing	14	1·3	1·6	1·3	1·7	2·0	2·2	2·5	2·8	3·1	3·5
Iron, steel and products (excl. machinery)	55	7·3	13·8	10·0	17·3	22·8	31·4	38·9	36·6	30·4	25·7
Machinery	60	7·3	15·4	13·3	11·1	24·8	46·1	62·7	61·9	50·2	43·5
Electrical machinery and equipment	27	5·2	9·1	7·3	7·4	14·0	22·5	25·3	21·2	21·0	14·8
Gold mining	39	45·4	47·5	51·0	52·1	55·0	51·1	40·7	31·1	22·7	20·0
Other non-ferrous metals	18	72·9	102·9	69·5	86·3	101·9	120·4	120·5	109·6	92·5	87·1
Non-metallic minerals (excl. fuels)	23	2·3	5·2	5·6	6·3	8·5	10·9	12·1	8·0	8·0	10·6
Coal and natural gas	16	4·5	4·9	4·8	5·8	6·8	6·8	6·1	6·2	5·7	6·6
Petroleum	11	35·6	38·9	36·1	33·2	34·1	35·5	34·7	37·5	38·0	38·1
Chemicals	29	10·2	12·1	11·1	15·7	18·6	22·0	19·4	17·7	19·8	20·2
Paints and polishes	13	1·1	1·2	0·9	1·6	2·0	2·6	3·5	3·1	3·7	3·9
Wholesale trade and service	67	3·8	4·9	3·7	6·3	7·8	10·3	12·3	13·9	12·6	13·8
Retail trade and service	34	4·3	6·1	6·0	7·6	10·0	13·2	17·6	20·5	22·6	26·2
Electric utilities	23	14·0	16·6	16·0	16·4	21·3	25·7	34·3	32·8	28·3	31·1
Communications	6	8·4	9·4	9·7	9·8	12·6	16·6	19·8	21·9	22·3	25·4
Transportation and storage	20	0·2	1·1	1·5	1·8	3·9	8·9	7·8	6·0	5·6	6·0
Grain elevators	15	0·8	−0·4	−1·4	1·2	2·6	3·4	3·0	6·9	5·6	4·3
Totals	**709**	**271·2**	**345·1**	**286·2**	**354·6**	**452·5**	**568·6**	**606·7**	**576·1**	**541·3**	**540·2**

Section 5.—Forecast of Capital and Maintenance Expenditures of Canadian Business*

One of the most important determinants of the level of business activity is the volume of private investment. The volume of private investment, in turn, is established largely by businessmen's evaluations of current and future prospects in their respective fields of effort, such as export possibilities, levels of home consumption, and the costs, prices, taxes, etc., affecting profits. Investment intentions, therefore, reflect the judgment of business enterprise on prospects for the future.

The Department of Reconstruction and Supply has, during the reconversion years, initiated a program to obtain annual forecasts of the capital and repair and maintenance expenditures of business enterprise. These forecasts are based on surveys of investment intentions made and compiled with the assistance of the Dominion Bureau of Statistics. The 1947 forecast, summarized below, covers, in part, returns from 12,000 firms in manufacturing, logging, utilities (including transportation), construction, banking and large segments of the retail, wholesale and service industries. The remainder of the forecast is built up by estimates of outlays in the unsurveyed retail, wholesale and service industries, in agriculture and in institutional and residential building. As maintenance and repair does not augment or replace capital goods, it is excluded from further consideration until the last paragraph.

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* Summarized from the report "Forecast of 1947 Investment by Canadian Business" published by the Department of Reconstruction and Supply.

Capital Expenditures in Recent Years.—During the past, investment in capital goods expanded greatly during years of prosperity. Investment in Canada in physical durable assets (excluding direct government outlay) rose sharply during the boom of the late 1920's and reached $1,100,000,000 in 1929. By 1933, expenditures of this type had declined to $218,000,000. They then turned upward, reaching $632,000,000 in 1937, followed by a moderate reduction in the next two years. In 1939, non-governmental investment in physical durable assets comprised 9 p.c. of the gross national product of $5,495,000,000 achieved in that year.

In the years following 1939, production and national income expanded rapidly as a result of wartime conditions. There was a consequent impetus to capital-goods investment, not only in munitions and related industries, but in other fields where the war-induced increase in the national income raised production substantially above the pre-war level. However, the large-scale war requirements for basic materials kept the production of capital goods to the minimum necessary for the successful prosecution of the War. Consequently, an accumulation of needs for capital goods took place among the industries less essential for war.

In spite of this postponement of capital formation, the requirements for war production alone necessitated a large investment program, particularly during the early years of the War. Investment in physical durable assets by the non-governmental sector of the economy stood at $842,000,000 in 1941, and receded to only moderately lower levels for the next three years.

Capital Expenditure in the Reconversion Period.—After the end of the War, the demand for capital goods was accentuated not only by the accumulation of replacement needs, but also because of the requirements of an expanded and altered peacetime market. These extensive demands could not be filled immediately; time was required for the necessary reorganization of the nation's productive facilities. Reconversion of industry which had commenced before V-E Day was speeded up with the conclusion of the War in August, 1945. In the transition period that followed, plans were made for re-equipment, modernization and expansion of industry to meet civilian needs.

11.—New Investment in Durable Physical Assets (Excluding Direct Government Investments), 1945-47

Type of Enterprise	1945 Preliminary Actual	1946 Estimated Actual	1947 Forecast
	$'000,000	$'000,000	$'000,000
Manufacturing	171	300	443
Mining	15	14	47
Woods operations	16	21	17
Utilities	117	217	432
Construction industry and commercial groups covered in survey[1]	30	55	95
Totals, Business Enterprise Covered in Survey	349	607	1,034
Remaining commercial groups[2] and agriculture (excluding housing)	167	216	258
Totals, All Business Enterprise Other Than Residential Real Estate	516	823	1,292
Institutions and residential buildings[3]	226	312	447
Totals, Investment in Durable Physical Assets	**742**	**1,135**	**1,739**

[1] Includes construction companies, banks, warehousing, wholesale establishments, chain retail stores (including chain restaurants, chain service stations, etc.), department stores, laundry and dry cleaning establishments and theatres. [2] Includes independent stores, hotels, garages, office buildings, recreation halls and all other commercial establishments not covered above. [3] Includes residential construction by Wartime Housing Limited.

As the tempo of change to a peacetime basis picked up, the outlay of the non-government sector of the economy on physical durable assets increased rapidly. According to Table 2, such capital expenditure amounted in 1945 to $349,146,000 in 1946 to $606,623,000, and the forecast outlay for 1947 is $1,033,557,000 for all business groups covered in the survey. Of the total expended and projected outlay on capital account for the three years of $1,989,326,000, it is possible to allocate $1,443,000,000 regionally, as follows: Maritimes, $65,000,000; Quebec, $423,000,000; Ontario, $682,000,000; Prairie Provinces, $113,000,000; and British Columbia $160,000,000. Of the total expended and projected outlay of $914,000,000 on the part of the manufacturing industries, the shares of the leading cities have been: Montreal, $134,000,000; Toronto, $147,000,000; Hamilton, $50,000,000; Windsor, $30,000,000; Winnipeg, $12,000,000; and Vancouver, $34,000,000.

Forecast of Capital Expenditure in 1947.—Business groups covered by the survey expected to make approximately $1,000,000,000 of the forecasted aggregate new capital expenditure of a little over $1,700,000,000 in 1947 (Table **1**). This total (covering the surveyed group only) represents an increase of 70 p.c. over the estimated value of investment actually achieved by these groups during 1946. The most marked expansion appears likely to take place in the mining industry, where the expected outlay is several times that of the previous year. In utilities, the investment planned for 1947 is nearly twice that accomplished in 1946. A substantial increase, 73 p.c., is also indicated for the construction industry, and for a number of commercial groups covered in the survey. In spite of some decline of output and employment in manufacturing following the conclusion of the War, good business prospects for 1947 are inducing this important group of industries to plan an investment program 48 p.c. greater than that undertaken in 1946. Woods operations alone of the principal groups covered have indicated a moderate decline in the expected value of investment during the coming year.

For those private sectors not included in the survey, independent estimates have been made of what might be considered reasonable objectives for the year, taking into account the availability of materials and other relevant considerations. These estimates add $700,000,000 to the total outlay and represent an increase of approximately 33 p.c. over the realized program for 1946.

The 70 p.c. increase in the surveyed sector of the business economy plus the estimated 33 p.c. in the unsurveyed sector give a combined increase of 53 p.c. in the aggregate demand for new physical durable assets over 1946. An investment program of this magnitude reflects not only the need for replacement, modernization and expansion of industry, but also a healthy optimism about economic development in the future on the part of business enterprise. The expansion indicated, however, is so substantial over a short period of time that the question arises as to the desirability of a sharp increase in investment activity that may be followed by a serious decline when market prospects lose their present buoyancy.

With respect to probable realization in 1947, another survey* recently conducted shows that producers of the principal basic and building materials expect, during 1947, to increase their aggregate production by amounts varying generally

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* "Production of Basic and Building Materials in Canada: Outlook, 1947" published by the Economic Research Branch, Department of Reconstruction and Supply.

12. Capital, Repair and Maintenance Expenditures of Business Enterprises, by Type of Enterprise and by Regions, 1945-47.

Type of Enterprise[1]	1945 Preliminary Actual	1946 Estimated Actual	1947 Forecast	Region[2]	1945 Preliminary Actual	1946 Estimated Actual	1947 Forecast
	$'000	$'000	$'000		$'000	$'000	$'000
Manufacturing—				**Maritime Provinces—**			
Capital	171,183	299,758	442,700	Capital	11,964	18,654	34,088
Repair	213,447	213,028	194,400	Repair	22,279	18,702	20,074
Total	384,630	512,786	637,100	Total	34,243	37,356	54,162
Mining—				**Quebec—**			
Capital	14,971	13,632	47,431	Capital	78,159	141,580	203,161
Repair	31,282	17,757	35,011	Repair	80,011	84,329	81,322
Total	46,253	31,389	82,442	Total	158,170	225,909	284,483
Woods Operations—				**Ontario—**			
Capital	15,565	20,890	16,829	Capital	115,936	208,976	357,180
Repair	5,371	19,926	8,602	Repair	152,823	137,372	170,643
Total	20,936	40,816	25,431	Total	268,759	346,348	527,823
Utilities—				**Prairie Provinces—**			
Capital	117,427	216,843	431,977	Capital	24,195	28,280	61,139
Repair	325,837	276,524	330,597	Repair	25,328	22,715	23,349
Total	443,264	493,367	762,574	Total	49,523	50,995	84,488
Commercial and Construction Industry—[3]				**British Columbia—**			
Capital	30,000	55,500	94,620	Capital	24,319	52,682	82,996
Repair	37,000	38,500	40,750	Repair	38,062	42,422	32,506
Total	67,000	94,000	135,370	Total	62,381	95,104	115,502
Totals—				**Totals—**			
Capital	**349,146**	**606,623**	**1,033,557**	**Capital**	**254,573**	**450,172**	**738,564**
Repair	**612,937**	**565,735**	**609,360**	**Repair**	**318,503**	**305,540**	**327,894**
Total	**962,083**	**1,172,358**	**1,642,917**	**Total**	**573,076**	**755,712**	**1,066,458**

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[1] Includes business groups covered by the 1947 survey. [2] Includes business groups for which expenditures are available regionally—manufacturing, mining, woods operations, central electric stations, telephones and electric railways. [3] Includes construction companies, banks, warehouses, wholesale establishments, chain retail stores (including chain restaurants, chain service stations, etc.), department stores, laundry and dry cleaning establishments and theatres. Excludes independent stores, hotels, garages, office buildings and recreation halls.

from 10 to 30 p.c. over the 1946 levels. It seems probable that this increased domestic output will be supplemented by larger imports of some supplies customarily obtained from abroad. A moderate increase in the supply of certain 'key' materials may permit a more than proportionate increase in aggregate investment, particularly when allowance is made for the substitution of materials that may occur in some instances. It is unlikely, however, that the available volume of supplies, though considerably improved over the previous year, will be sufficient physically to support an over-all increase of 53 p.c. in the intended volume of business investment in 1947. Scarcity of labour skills, particularly in the construction industry, may constitute a further hindrance to the realization of the investment intentions. Although some of the intentions may not be realized during 1947, it is nevertheless likely that the business investment program will involve an increased portion of the nation's productive facilities and will contribute correspondingly to the maintenance of a high level of national income and employment.

Forecast of Combined Capital and Repair and Maintenance Expenditures.—Since the production of new capital goods and the repair and maintenance of existing capital goods have to be supplied from the same basic productive facilities, total figures for the two provide an indication of total demand that may be placed on the capital goods industries and labour. In the surveyed sector of business enterprise, it is estimated that new investment will be 70 p.c. larger and maintenance and repair 8 p.c. larger in 1947 than in 1946, with a combined increase of 40 p.c. (Table 12). On the assumption that anticipated repair and maintenance expenditures in those groups not covered by the survey bear the same relationship to 1946 outlay as in those groups covered by the survey, the aggregate contemplated capital, repair and maintenance expenditures for all business (excluding direct government) would be about one-third above the actual outlay for 1946. In view of the anticipated small increase in repair and maintenance expenditures, it is likely that most of the anticipated increase in the supply of materials and components will go into new investment. It still appears, however, that in 1947, as in the previous year, business enterprise will find it difficult to realize fully its investment intentions.

It is forecasted that the surveyed sector of business enterprise will increase its outlay for additions to or replacement of buildings by nearly 50 p.c., and contract outlay on repair and maintenance of structures by about 13 p.c., for an anticipated total construction outlay 20 p.c. larger in 1947 than in 1946. The outlay for new machinery and equipment is expected to increase by about 85 p.c. and for maintenance and repair of machinery and equipment by nearly 25 p.c., for a total increase of 55 p.c.

CHAPTER XXVII.—INSURANCE*

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An introductory statement summarizing the salient features of the legislation covering insurance in general and the fields of Dominion and provincial jurisdiction appears at pp. 844-846 of the 1941 Year Book.

The 1942 Year Book, at pp. 842-846, contains a special article on the developments in fire and casualty insurance in Canada between 1931 and 1940, consequent upon the enactment of the three Insurance Acts of 1932.

INSURANCE IN CANADA DURING THE DEPRESSION AND WAR PERIODS

Life Insurance

This review brings up to date, in some respects, the record of life insurance contained in the Canada Year Book, 1925; a historical review of legislation regarding the origin and growth of the business is contained in the 1933 edition.

In the decade 1916 to 1925 the net amount of life insurance business effected in Canada by Canadian, British, and foreign life companies registered under Dominion laws, and the net amount of business in force at the end of the period, were each three times the corresponding amounts effected in, and in force at the end of, the preceding decade and the amount paid to policyholders was almost exactly 10 p.c. of the amount effected.

In the first half of the decade 1926 to 1935, the amount effected was approximately 90 p.c. of the amount effected in the whole preceding decade and the amount in force at the end of 1930 exceeded by over 55 p.c. the amount in force at the end of 1925; the amount paid to policyholders was approximately 10·5 p.c. of the amount effected.

In the second half of the decade 1926 to 1935, the amount effected was little more than 70 p.c. of the amount effected in the first half and the amount in force at the end of the decade was nearly 4 p.c. less than at the end of 1930, while the payments to policyholders were over 26 p.c. of the amount effected and exceeded the amount paid in the first half of the decade by approximately 67 p.c., the larger proportion of which increase was represented by the increased payment of cash surrender values of the policies.

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*Material in this Chapter has been prepared or revised under the direction of G. D. Finlayson, C.M.G., Superintendent of Insurance, Ottawa.

These figures indicate, first, that the impact of the depression, which commenced in 1929, did not seriously disturb the life insurance field before the end of 1930; secondly, that thereafter the effect of the depression was greater than that produced by any other period of financial panic, war, or pestilence that Canada has experienced; and, thirdly, that the life insurance policies held by a depression-stricken public became in effect savings deposits payable on demand to the extent of the cash values guaranteed by the policies.

The experience of the decade 1926 to 1935 has been divided into the two periods because the first part was mainly a period of apparent prosperity and the latter a period of real depression. The decade that followed may also conveniently be divided into two parts, since the first part included the remaining years of the depression period and the latter part was almost wholly devoted to the prosecution of the War, with its attendant increase in the circulation of money and in the national income. The amount of new business effected in the first part of that decade was approximately 97 p.c. of that in the latter part of the preceding decade; the net amount in force at the middle point of the later decade was over 11 p.c. in excess of the amount in force at the end of the preceding decade, while the total payments to policyholders were approximately 94 p.c. of the amount paid in the preceding five years. A very different trend was experienced in the last half of the decade 1936 to 1945. New business effected exceeded by approximately 39 p.c. that effected in the first half. The amount in force at the end of the period exceeded by approximately 40 p.c. the amount in force at its middle point and the payments to policyholders, notwithstanding the payment of war claims, fell below the amount paid in the first half by 6 p.c.

The experience of the Second World War duplicates, so far as the business of life insurance is concerned, that of the First World War; the stability of the life insurance institution has been more fully recognized by the public than ever before, and it will be surprising if the post-war period on which we are entered does not see a further great increase in the insurance protection of the Canadian public similar to that which characterized the period commencing with the year 1919.

The foregoing experience is indicated in tabular form by the following figures for all companies, which include as well the experience for the earlier decades commencing with the year 1875.

Period	Companies Registered at End of Period[1]	Net New Business Effected	Net Amount in Force at End of Period	Premiums and Annuity Consideration Received	Total Payments to Policyholders
	No.	$	$	$	$
1875	36 (2)	15,074,258	85,009,264	2,882,387	719,485
1876–1885	40 (13)	174,230,286	149,962,146	32,555,618	16,772,766
1886–1895	39 (12)	416,508,562	319,257,581	81,310,433	44,134,250
1896–1905	52 (12)	723,867,143	630,334,240	154,416,016	85,761,613
1906–1915	58 (13)	1,604,962,050	1,311,616,677	318,655,586	179,028,516
1916–1925	59 (13)	4,853,035,411	4,159,019,848	931,147,194	472,977,040
1926–1930	62 (15)	4,418,048,363	6,492,283,194	965,909,264	507,554,792
1931–1935	62 (19)	3,198,099,186	6,259,158,404	1,083,939,951	850,047,201
1936–1940	59 (18)	3,095,993,738	6,975,322,460	1,059,253,965	796,328,743
1941–1945	57 (11)	4,297,504,526	9,751,040,835	1,251,828,908	748,945,047
TOTALS	-	22,797,323,523	-	5,881,899,322	3,702,269,453

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[1] Figures in parentheses indicate the number of companies included in the total which were inactive in the sense that no new business was transacted.

In the statement on p. 1065, the Canadian business of Canadian companies is included, as follows:—

Period	Companies Registered at End of Period	Net New Business Effected	Net Amount in Force at End of Period	Premiums and Annuity Consideration Received	Total Payments to Policyholders
	No.	$	$	$	$
1875	7	5,077,601	21,957,296	707,256	152,652
1876-1885	10	92,815,053	74,591,139	12,792,386	5,278,156
1886-1895	11	245,869,453	188,326,057	42,034,660	19,940,888
1896-1905	22	430,551,779	397,946,902	92,930,789	43,402,141
1906-1915	26	962,874,189	829,972,809	206,183,496	105,560,227
1916-1925	28	2,999,840,703	2,672,989,676	592,230,921	299,539,492
1926-1930	28	2,906,522,666	4,319,370,209	625,181,068	336,329,564
1931-1935	28	1,976,741,019	4,164,893,298	706,314,305	555,416,582
1936-1940	28	1,997,224,913	4,609,213,977	686,335,884	501,502,145
1941-1945	28	2,865,973,053	6,440,615,383	819,073,885	483,391,125
TOTALS	-	14,483,490,429	-	3,783,784,650	2,350,512,972

The growth of the total business of Canadian companies is shown in the following statement:—

Period	Net New Business Effected	Net Amount in Force at End of Period	Premiums and Annuity Consideration Received	Total Payments to Policyholders	Actuarial Reserve at End of Period	Total Payments to Policyholders and Increase in Reserve
	$	$	$	$	$	$
1875	5,077,601	21,957,296	707,261	152,652	2,068,936	-
1876-1885	93,728,125	76,139,068	13,059,872	5,330,487	8,823,115	12,084,666
1886-1895	265,047,009	203,356,228	44,634,320	20,599,111	31,839,771	43,615,767
1896-1905	556,509,715	487,624,079	114,554,920	49,198,941	91,272,164	108,631,334
1906-1915	1,224,168,192	1,044,282,837	294,124,940	139,176,825	227,562,062[1]	275,466,723[1]
1916-1925	4,004,124,315	3,722,569,189	879,449,652	460,984,670	688,566,082[1]	921,988,690[1]
1926-1930	5,382,136,760	7,293,602,783	1,199,277,809	640,011,663	1,259,253,948	1,210,699,529
1931-1935	3,667,972,393	6,991,634,101	1,437,127,114	1,080,324,971	1,588,098,044	1,409,169,067
1936-1940	3,300,412,035	7,836,611,820	1,373,849,739	1,014,471,065	2,045,391,799[1]	1,471,764,820[1]
1941-1945	4,278,921,631	10,286,478,923	1,564,926,451	980,048,377	2,725,376,272[1]	1,660,032,850[1]
TOTALS	22,778,097,776	-	6,921,712,078	4,390,298,762	-	-

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[1] There are included in these figures reserves approximating $7,500,000 in 1906-15, $80,000,000 in 1916-25, $1,400,000 in 1936-40 and $830,000 in 1941-45 on business taken over by reinsurance for which there is no corresponding addition to premiums received.

Investments.—It is now generally conceded that the depression of the 1930's arose from a wave of speculation which swept this continent, if not, indeed, the whole world, under the guise of seizing so-called investment opportunities that presented themselves on the stock exchanges. While the position of Canadian life insurance companies generally was not impaired to the danger point, it appeared desirable to modify the investment powers of the companies by legislation. Up to 1932, the investment powers enjoyed by the companies were subject to restrictions as to the nature and dividend record of corporation stocks that might be acquired, but the amount that might be invested by any company in such stocks coming within the prescribed conditions was unlimited by statute. In 1932, at the request of the companies themselves, the total amount that might be invested by any company in common stocks was limited to 15 p.c. of the amount of its ledger assets; companies having theretofore exceeded that percentage were debarred from investing further in such stocks until, by sales, writing down or increase in ledger assets, the limiting percentage was restored.

Another important change in investment policy induced not by statute but by the judgment of the companies themselves was a decrease in the loans on mortgage and a marked increase in the holdings of government bonds. The latter tendency gradually and steadily increased throughout the fifteen-year period following the onset of the depression until, in the later war years, the full net amount available for new investment by the companies was absorbed in government issues.

The following figures for all Dominion life companies will indicate, as at the end of the years given, the changes due to both of these features of investment policy; the trend of the average rate of interest earned on ledger assets during the said years is also shown.

	Investments Held in—				*Percentages—*			
As at Dec. 31—	*(1) Common Stocks*	*(2) Federal Government Bonds*	*(3) Mortgage Loans*	*(4) Total Ledger Assets*	*(1) of (4)*	*(2) of (4)*	*(3) of (4)*	*Average Rate of Interest Earned*
	$'000,000	$'000,000	$'000,000	$'000,000	p.c.	p.c.	p.c.	p.c.
1930	311	33	338	1,436	22	2	24	6·23
1935	300	177	301	1,808	17	10	17	4·59
1940	260	309	306	2,379	11	13	13	4·24
1945	146	1,142	267	3,367	4	34	8	3·89

War Mortality.—At the outbreak of the First World War in 1914 few of the life insurance policies outstanding in Canada contained any restrictions respecting military service and most of the companies whose policies did contain such restrictions voluntarily adopted, at the outbreak of the war, a policy of waiving the same and undertaking to pay the face amount of the policies becoming claims due to war service. For new policies issued after the outbreak of the War, the course adopted by the different companies was far from uniform and was based largely on the degree of optimism or otherwise with which the executives of the companies viewed the course and duration of the War; as a rule the provision made for extra premiums for war service was far from adequate to meet the extra mortality incurred. With the increasing gravity of the war problem, the premiums and restrictions were made more onerous and in some cases among the smaller companies became almost prohibitive.

In 1919, the Department of Insurance attempted to collect the figures for the war claims incurred by all companies under Dominion and Provincial laws. The resulting figures represented the amount of settlements under the said policies and were divided into those relating to policies held by: (a) enlisted men killed in action or dying from wounds; (b) enlisted men dying from other causes; (c) other persons engaged in war service or civilians dying as a result of war operations. The figures were as follows, for the years 1914 to 1918, inclusive:—

	Dominion Licensees		
Item	*Canadian Policyholders*	*British and Foreign Policyholders of Canadian Companies*	*Provincial Licensees*
	$	$	$
(a)	15,135,811	1,075,345	1,864,369
(b)	1,548,562	126,844	198,213
(c)	471,045	54,905	35,710
TOTALS	17,155,418	1,257,094	2,098,292

At the commencement of the Second World War in 1939, the companies took advantage of the experience gained twenty-five years earlier and adopted for policies thereafter issued a scale of extra premiums according to branch and geographical location of war service based on whatever data were available as to the relative hazards incurred. While, with the progress of the War, changes in the war clause and scale of premiums became necessary, the following summary indicates fairly well the main provisions of the war clause and the said scale of premiums.

The benefits payable under such policies becoming claims:—

(a) as a result of death occurring directly or indirectly from aviation training or naval or military aviation service; or

(b) as a result of such service outside of Canada and the United States or within six months after the end of such service; or

(c) as a result of travel or residence outside the said limits and death resulting directly or indirectly from the War,

would be limited to a return of the premiums paid accumulated at 3 p.c. compound interest, unless extra premiums for war service were paid on the following scale:—

I.	Military Service Outside of Canada—	
	1. All military service other than aviation services except the Army Medical Corps	$90 per $1,000 per annum.
	2. Army Medical Corps except nurses	$40 per $1,000 per annum.
	3. Nurses	$25 per $1,000 per annum.
II.	Service Outside of Canada—	
	Non-combatant units such as Salvation Army, Y.M.C.A., K. of C., etc	$40 per $1,000 per annum.
III.	Civilian Travel and Residence—	
	1. Within the area consisting of the Continents of North and South America, including the West Indies, the Bermudas, and Newfoundland, together with the waters lying between the same	No extra.
	2. Travel to or residence in an area outside the area described above	Not less than $10 per $1,000 per annum, depending on the length of travel or residence, number of trips, etc.
IV.	Naval Service and Marine Service Outside of Canada—	
	1. Naval service, excluding submarine service	Not less than $50 per $1,000 per annum.
	2. Mercantile Marine	$25 per $1,000 per annum.
	The regular War Clause excluding the section relating to travel will be included for these risks.	
V.	Aviation Service in Canada—	
	1. Groundsmen such as mechanics, repair men, etc	$10 per $1,000 per annum.
	2. Student pilots	$60 per $1,000 per annum on the understanding no refund will be made on departure from Canada within one year.
	3. Experienced Pilots, viz., those with 300 or more flying hours—	
	(a) Non-commissioned Pilots	$40 per $1,000 per annum.
	(b) Pilot Officers	$40 per $1,000 per annum.
	(c) Flying Officers	$35 per $1,000 per annum.
	(d) Flight Lieutenants	$25 per $1,000 per annum.
	(e) Squadron Leaders	$20 per $1,000 per annum.
	(f) Wing Commanders	$15 per $1,000 per annum.
	4. Crew, observers, or photographers	$35 per $1,000 per annum.

While the record of war mortality experienced by the life insurance companies operating in Canada has not yet been fully compiled, it is probable that the following figures will be found to be fairly reliable; they relate to the war claims incurred on Canadian policies during the period 1939 to 1945, inclusive:—

Year	*Settled by Payment of Full Sum Assured*		*Settled by Payment of Limited Benefit Only*		*Total Claims*	
	Policies	*Face Value*	*Policies*	*Face Value*	*Policies*	*Face Value*
	No.	$	No.	$	No.	$
1939........	50	100,000	Nil	-	50	100,000
1940........	310	600,000	60	100,000	370	700,000
1941........	920	1,600,000	200	500,000	1,120	2,100,000
1942........	2,630	3,500,000	750	1,700,000	3,380	5,200,000
1943........	3,900	4,300,000	1,570	3,100,000	5,470	7,400,000
1944........	7,770	7,900,000	4,740	8,200,000	12,510	16,100,000
1945........	6,960	7,000,000	4,460	8,200,000	11,420	15,200,000
TOTALS...	22,540	25,000,000	11,780	21,800,000	34,320	46,800,000
Deduction under limited benefit clause......	-	-	-	20,300,000	-	20,300,000
GRAND TOTALS...	-	25,000,000	-	1,500,000	-	26,500,000

The following additional data respecting the two World Wars, derived from sources believed to be accurate, are of interest:—

Item	*First World War*	*Second World War*
Duration....................................	4 years, 3 months	5 years, 11 months
Number of Canadians enlisted..............	620,000	1,003,000
Number of Canadians sent overseas.........	418,000	555,000
Financial cost to Canada....................	$1,700,000,000	$20,256,000,000[1]
Canadian claims paid by insurance companies in Canada..............................	$20,500,000	$26,500,000

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[1] Sept. 10, 1939, to Mar. 31, 1947.

Fire and Casualty Insurance

Fire Underwriting Experience.—This review of the fire and casualty business in Canada follows that appearing in the 1942 edition of the Canada Year Book which brought the record of the business up to and including the year 1940. This article will review the figures to the end of 1945 so that the story for the decade which saw the end of the depression period and all of the Second World War period will be complete.

The experience of fire insurance has, in the view of the trade, a traditional relation to the activity or otherwise of general business; that view is that a period of depression is a period of high fire loss and vice versa, and there are statistics, as well as other considerations, to support that view. If by moral hazard is meant an inclination to incendiarism, it is obvious that anyone so inclined is more likely to yield in that direction if the business carried on in his insured building is bringing him a loss instead of a normal profit but, even if the term implies no criminal intent but merely an involuntary lessening of ordinary caution, a period of inactivity or unprofitable business naturally brings a moral hazard making for high fire loss.

The notable feature of the depression of the 1930's is that it brought an unusually low fire-loss ratio in Canada and a correspondingly high rate of fire underwriting profit. The figures for the two ratios are given below, the former relating losses incurred to premiums written and the latter the fire underwriting profit to premiums written. The statement shows also the experience for the decade 1919-28.

Year	*Fire-Loss Ratio*	*Rate of Fire Underwriting Profit*
	p.c.	p.c.
1919–28	52·20	4·70
1929	53·84	1·96
1930	57·80	0·85
1931	59·47	−2·45
1932	64·10	−5·73
1933	52·09	5·43
1934	40·92	15·41
1935	36·25	15·61
1936	34·99	15·84
1937	34·88	14·99
1938	40·91	10·07
1929–38	48·42	6·52
1939	38·40	12·57
1940	36·84	13·72
1941	36·13	6·30
1942	43·07	6·52
1943	47·04	5·64
1944	52·56	−6·99
1945	52·43	−6·13

It will be noted that the years that marked the depth of the depression, namely 1934 to 1937, saw also an unusually low loss ratio and high rate of underwriting profit and those features have persisted into the war period until, with the slackening of wartime production in industry, a marked reversal has taken place.

The explanation given by many underwriters of the departure from the expected experience indicated above is that the severity of the depression in its early years had the effect of practically eliminating the equity of owners in their buildings occupied for business purposes, so that there was no profit incentive to arson. On the other hand, fire prevention organizations regard the change as evidence of the effectiveness of their publicity and educational programs in favour of conservation of property; perhaps a longer period of post-war conditions is necessary to permit a final judgment between these views, but at this writing the prospect for an early reduction of the fire-loss ratio is not bright.

The Rate of Fire Premium.—The large underwriting profits shown in the above statement are not due to any increase in the premium rate. There has been, throughout the fifteen years and earlier, a gradual decrease in that rate. The aggregate rate for all risks, regardless of the term of the contracts, in 1945 was 72 cents per $100 insured, while in 1929 the corresponding rate was 82 cents, and going back to 1918, $1·06. Such an aggregate rate, however, is affected by the relative proportions of one-year and three-year business written by the companies; an increase in the proportion of three-year business will naturally produce an increased aggregate premium rate. A fairer estimate of the change over any period is obtained by dealing separately with the shorter- and longer-term business. This has been done for the years 1939 to 1945 by dealing separately with the one-year term experience and adjusting the longer-term experience to a one-year basis. The result is a change in the rate of premium for a one-year term per $100 insured from 49 cents in 1939 to 46 cents in 1945 or, going back to 1922, from 92 cents.

The reduction in rate indicated by the foregoing is brought about, not by government regulation of rates, but by a healthy competition among different groups of insurers, although some underwriters viewing the present trend towards higher loss ratios and underwriting losses may question the healthiness of the rivalry which has brought about the lower scale of premiums.

Casualty Insurance.—The great majority of fire insurance companies operating under Dominion registration transact one or more classes of insurance other than fire, such as automobile, personal accident and sickness, hail, guarantee, and other classes affecting the person and property. These latter classes, however, have shown a more rapid rate of growth than has the fire insurance business and in 1940, for the first time, the volume of casualty premiums exceeded the fire premiums; this tendency has increased until, in 1945, the casualty premiums amounted to over $69,000,000, while the fire premiums amounted to just over $58,000,000. The casualty classes that, at the present time, show the greatest rate of increase are automobile, personal accident and sickness, and personal property insurance.

Number of Operating Companies.—There has been a marked increase in the number of companies operating in the fire and casualty field until at the present time the total number of such companies registered by the Department is 320 as compared with 280 in 1929. While this increase has occurred in companies of all nationalities, Canadian, British, and foreign, the most marked change has been in the latter group and the reason for this is probably to be found largely in the restriction of charter powers of companies domiciled in the United States.

Until recently it has been the policy of the States of the United States, by which the great majority of insurance companies in that country are organized, to prohibit a company authorized to transact fire insurance, for instance, from transacting also any class of insurance relating to the person, so that such a company would be prohibited from issuing personal accident and sickness policies or liability policies indemnifying for injury to the person. The result was that while that company might issue an automobile policy covering fire, collision, theft, and property damage, it could not cover the liability feature indemnifying the insured against claims by third parties arising from personal injuries. To overcome this handicap the fire insurance companies were driven either to incorporate or acquire separate casualty companies to transact the casualty classes involving the insurance of the person. The British companies having, as a rule, omnibus powers and the special Acts incorporating Canadian companies providing only the one restriction, namely, that life insurance business if transacted by companies transacting fire or casualty business should have a complete separation of funds, assets, and accounts for the life business, there has been no tendency to multiplication of companies.

It is a matter for gratification that many of the States are at the present time inclined to revise their Acts so as to permit a combination of the principal casualty classes with fire. The State of New York, for instance, at the session of the Legislature in 1946 and 1947 has abandoned the prohibition in respect of automobile insurance referred to above.

General

Taxation.—The life insurance business in Canada is largely exempt from taxation in Canada except to the extent that the premium income thereof is subject to a specific tax which, since the beginning of the War and up to date, has been levied solely by the Federal Government; the rate of that tax is 2 p.c. on the net premiums less dividends to policyholders and excluding the consideration for annuities. The only other tax is the tax on profits accruing to the shareholders of Canadian companies through their shareholders' accounts under the Income War Tax Act; the amount of that tax in 1945 represented approximately 0·3 p.c. of the Canadian premium income and 0·2 p.c. of the total premium income of those companies.

The tax on fire and casualty companies' profits has enjoyed no similar exemption; the profits of those companies have been subject to income and excess profits taxes in much the same way as the profits of other industries. The only exception to this is that heretofore purely mutual companies have been entirely exempt and with the growth of that group of companies the burden of taxation on joint stock companies has been a form of discrimination of which the latter group has complained.

The Royal Commission on Co-operatives, which conducted its investigation into the question of taxation of co-operatives generally, received representations on the insurance aspect of the question and in their Report of Sept. 25, 1945, they recommended:—

> "1. That the Income War Tax Act and The Excess Profits Tax Act (1940) be amended to provide for the taxation of mutual organizations carrying on the business in Canada, of fire, casualty and automobile insurance, in accordance with the recommendations which follow.
>
> 2. That dividends on, or refunds of premiums to policyholders, whether paid in cash or applied against renewal premiums, together with any unabsorbed premiums or premium deposits returned to or payable to policyholders, and any other amount credited to a policyholder or subscriber in such a way that it is exigible by him on giving such notice as may be deemed reasonable, be allowed as a deduction in computing taxable income.
>
> 3. That joint stock companies and other insurers writing fire, automobile and casualty insurance, which pay dividends or make refunds of premiums to policyholders be allowed to deduct such dividends or refunds in computing taxable income."

Following that recommendation, the Income War Tax Act was amended to remove the purely mutual fire and casualty companies from the exemption [(1946) c. 55, s. 3, amending s. 4(g)] and to permit the deduction from taxable income by any such company, stock or mutual, of dividends to policyholders which during the taxation year were:—

> "(a) paid to the policyholder;
>
> (b) applied in discharge, in whole or in part, of any liability of the policyholder to pay premiums to the insurance company; or
>
> (c) credited to the account of the policyholder on terms that he is entitled to or may obtain payment thereof within a period not exceeding thirty days after demand for payment by him, if notice of crediting upon such terms has been given to the policyholder by the insurance company."

[*ibidem*, s. 4(12), enacting s. 5, ss. (7)]

An exception to the foregoing is that of the company that derives from the insurance of farm property not less than 50 p.c. of its net premium income; such a company is exempt from income tax.

The proportions in which the Canadian premiums of fire and casualty companies were distributed in 1945 between the various groups classified as to corporate structure, together with the underwriting profits and income and excess profits taxes incurred, are given in the following statement:—

Company	(1) Premiums	(2) Under-writing Profit	(3) Income and Excess Profits Taxes	Percentages	
				(3) of (1)	(3) of (2)
	$	$	$	p.c.	p.c.
CANADIAN—					
Mutual	5,663,124	346,940	Nil	–	–
Stock mutual	2,875,702	96,056	24,100	0·8	25·1
Joint stock	27,726,521	808,856	812,580	2·9	100·5
TOTALS, CANADIAN	36,265,347	1,251,852	836,680	2·3	66·8
BRITISH—					
Joint stock	36,194,361	−1,542,206	41,709	0·1	–
FOREIGN—					
Reciprocal	587,412	80,686	Nil	–	–
Deposit-premium mutual	1,163,951	123,632	"	–	–
Other mutual	9,764,964	1,171,397	22	[1]	[1]
Joint stock	43,973,812	−71,720	697,621	1·6	–
TOTALS, FOREIGN	55,490,139	1,303,995	697,643	1·3	53·5
ALL COMPANIES—					
Reciprocal	587,412	80,686	Nil	–	–
Deposit-premium mutual	1,163,951	123,632	"	–	–
Other mutual	15,428,088	1,518,337	22	[1]	[1]
Stock mutual	2,875,702	96,056	24,100	0·8	25·1
Joint stock	107,894,694	−805,070	1,551,910	1·4	–
GRAND TOTALS, 1945	127,949,847	1,013,641	1,576,032	1·2	155·5
GRAND TOTALS, 1944	117,154,375	906,838	2,651,115	2·3	292·3

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[1] Too small to be expressed.

Provincial Companies.—The foregoing figures relate in the main to the business of Dominion companies and British and foreign companies registered under the Acts of the Dominion. There is, in addition, a limited volume of business transacted by companies incorporated by the provinces of Canada which have not obtained Dominion registration. The outstanding features of the business transacted in 1940 and 1931 under the two jurisdictions were given in the review of fire and casualty insurance in the Canada Year Book, 1942, and this table is now brought up to Dec. 31, 1945, the ratios for the two earlier years being retained, as follows:—

Class of Business	Dominion Licensees	Provincial Licensees	Ratio of Provincial Licensees to Total		
			1945	1940	1931
	$	$	p.c.	p.c.	p.c.
Fire Insurance—					
Insurance in force	15,054,848,612	1,491,715,144	9·02	9·48	12·32
Net premiums written	58,335,728	6,205,250	9·61	9·57	12·49
Casualty Insurance—					
Net premiums written	69,217,942	3,586,093	4·93	4·43	6·54
Life Insurance—					
Insurance in force	9,751,040,835	213,042,594	2·14	0·94	1·55
Net premiums received	261,176,100	5,551,540	2·08	0·97	1·28
Fraternal Insurance—					
Insurance in force	246,121,776	133,031,870	35·09	26·07	34·69
Net premiums received	4,610,018	2,707,997	37·00	30·20	36·00

Constitutional.—The interest of insurers on this continent in this subject in recent years has been mainly directed to jurisprudence in the United States and particularly the judgment of the Supreme Court of the United States in the case *United States of America* v. *South-Eastern Underwriters Association*, 322 U.S. 533, by which the long-standing judgment of *Paul* v. *Virginia*, 8 Wall. 168, of 1869 was reversed; the latter judgment declared that issuing a policy of insurance is not a transaction of commerce and on the basis of that pronouncement, Courts there, and probably here also, have regarded the whole business of insurance as falling outside the field of trade and commerce. In one of the earliest constitutional cases, *Parsons* v. *The Queen*, the Privy Council was apparently influenced in its decision by the United States judgment and that case has dominated the thinking of that Board, as well as of Canadian Courts, in constitutional cases, particularly those relating to insurance, ever since.

The substance of the reversing decision may be judged from the following quotations from the reasons for judgment of the various members of the Court:—

> "The reasons given in support of the generalization that 'the business of insurance is not commerce' and can never be conducted so as to constitute 'Commerce among the States' are inconsistent with many decisions of this Court which have upheld federal statutes regulating interstate commerce under the Commerce Clause.
>
> . . . .
>
> "These activities having already been held to constitute interstate commerce, ... it would indeed be difficult now to hold that no activities of any insurance company can ever constitute interstate commerce so as to make it subject to such (federal) regulation;
>
> . . . .
>
> "For constitutional purposes a fiction has been established, and long acted upon by the Court, the states, and the Congress, that insurance is not commerce.
>
> . . . .
>
> "Any enactment by Congress either of partial or of comprehensive regulations of the insurance business would come to us with the most forceful presumption of constitutional validity. The fiction that insurance is not commerce could not be sustained against such a presumption, ..."

Section 1.—Fire Insurance

In Canada, fire insurance began with the establishment of agencies by British fire insurance companies. These were usually situated at the seaports and operated by local merchants. The oldest existing agency of such a company commenced business at Montreal in 1804. The first Canadian company dates from 1809 and the first United States company to operate in Canada commenced business in 1821. A short account of the inception of fire insurance in Canada is given at pp. 846-847 of the 1941 Year Book.

A feature of the fire insurance business, besides the large percentage of British and foreign companies, is the continued increase in the number of companies operating on the mutual or reciprocal plan. These companies, in which all profits or losses are directly received or paid by the policyholders, are making themselves felt as competitive factors in the fire insurance business. (See p. 837 *re* farmers' mutuals.)

Subsection 1.—Grand Total of Fire Insurance in Canada

Of the total amount of insurance effected in Canada during each year, a part is sold by the companies holding provincial licences and permits. Such companies generally confine their operations to the province of incorporation, but may be allowed to sell insurance in other provinces.

In the more detailed analyses of fire insurance dealt with in Table 2, the statistics cover only the operations of companies with Dominion registration, but, as shown in Table 1, such companies account for approximately 90 p.c. of the insurance in force.

1.—Fire Insurance in Canada, 1945

Item	Gross Insurance Written	Net in Force at End of Year	Net Premiums Written	Net Losses Incurred
	$	$	$	$
Dominion Licensees	14,533,602,054	15,054,848,612	58,335,728	30,585,357
Provincial Licensees—				
(a) Provincial companies within provinces by which they are incorporated	793,020,276	1,367,302,367	5,380,910	2,788,060
(b) Provincial companies within provinces other than those by which they are incorporated	129,214,003	124,412,777	824,340	425,161
Totals, Provincial Licensees	922,234,279	1,491,715,144	6,205,250	3,213,221
Lloyds, London	188,184,085	210,464,955	1,359,590	837,517
Grand Totals	**15,644,020,418**	**16,757,028,711**	**65,900,568**	**34,636,095**

Subsection 2.—Historical and Operational Statistics of Dominion Fire Insurance Companies

Historical Statistics of Dominion Fire Insurance.—The report of the Superintendent of Insurance for the year ended Dec. 31, 1945, shows that at that date there were 269 fire insurance companies under Dominion registration; of these, 59 were Canadian, 73 were British, and 137 were foreign companies. In 1875, the first year for which authentic records were collected by the Department of Insurance, 27 companies operated in Canada—11 Canadian, 13 British and 3 United States. The proportionate increase in the number of British and foreign companies from 59 p.c. to 78 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

The trend in the average rate payable for fire insurance has been generally downward, although the increases in fire losses experienced in the years from 1941 to 1945 have had the effect of checking that tendency. The increase in value of insurable buildings and their contents tends to increase fire insurance premiums in spite of the trend of the average rate. Another factor that has tended to increase the amount of premiums during the past few years is that, in the years before 1939, fire insurance companies were prohibited under provincial legislation from insuring mercantile or manufacturing risks for terms exceeding one year, but since that time they have been free to insure such property without a term limitation. The figures indicate that this privilege was not taken advantage of to any great extent until 1941.

2.—Fire Insurance, by Companies Operating under Dominion Registration, 1900-45

NOTE.—Figures for the years 1869-1899 are given at p. 973 of the 1939 Year Book, and figures for the intervening years from 1901-34 at p. 847 of the 1942 edition.

Year	Amount in Force at End of Year	Net Premiums Received During Year	Losses Paid During Year	Percentage of Losses to Premiums	Gross Amount of Risks Taken During Year	Premiums Charged Thereon	Average Cost per $100 of Insurance
	$	$	$	p.c.	$	$	$
1900	992,332,360	8,331,948	7,774,293	93·31	803,428,654	10,031,735	1·25
1905	1,318,146,495	14,285,671	6,000,519	42·00	1,140,095,372	18,262,037	1·60
1910	2,034,276,740	18,725,531	10,292,393	54·96	1,817,055,685	24,684,296	1·36
1915	3,531,620,802	26,474,833	14,161,949	53·49	3,111,552,903	36,048,345	1·16
1920	5,969,872,278	50,527,937	21,935,387	43·41	6,790,670,610	71,143,917	1·05
1925	7,583,297,899	51,040,075[1]	26,943,089[2]	52·79	7,646,026,535	74,679,130	0·98
1930	9,672,996,973	52,646,520[1]	30,427,968[2]	57·71	10,311,193,608	82,700,147	0·80
1935	8,782,698,099	40,884,876[1]	14,821,465[2]	36·25	9,641,773,674	67,596,146	0·70
1936	9,248,273,260	40,218,296[1]	14,072,237[2]	34·99	9,642,269,141	66,831,039	0·69
1937	9,773,324,476	42,498,127[1]	14,821,536[2]	34·88	10,432,290,081	71,913,161	0·69
1938	9,953,905,417	42,439,688[1]	17,363,670[2]	40·91	10,422,793,265	70,735,709	0·68
1939	10,200,346,551	40,984,276[1]	15,738,902[2]	38·40	11,117,212,274	71,854,442[3]	0·65
1940	10,737,568,226	41,922,312[1]	15,444,927[2]	36·84	12,072,174,014	72,682,679	0·60
1941	11,386,819,286	49,305,539[1]	17,814,322[2]	36·13	13,345,610,185	85,877,389	0·64
1942	12,565,212,694	47,272,440[1]	20,360,534[2]	43·07	12,759,419,939	84,168,663	0·66
1943	13,386,782,873	47,153,094[1]	22,181,244[2]	47·04	12,838,807,204	84,047,821	0·65
1944	14,174,130,630	55,027,051[1]	28,921,930[2]	52·56	14,572,876,024	96,065,279	0·66
1945	15,054,848,612	58,335,728[1]	30,585,357[2]	52·43	10,096,447,893[4]	72,872,125	0·72

[1] Net premiums written. [2] Net losses incurred. [3] For 1939 and later years companies were free to insure mercantile and manufacturing property without a term limitation; see text preceding table. [4] This figure is not comparable with those for previous years since it indicates "Gross direct written", disregarding all reinsurance, assumed or ceded.

Premiums Written and Losses Incurred.—The relationship of losses incurred to premiums written is shown for Dominion registered companies by provinces in Table 3.

3.—Net Premiums Written and Net Losses Incurred in Canada by Canadian, British and Foreign Companies Operating Under Dominion Registration, by Provinces, 1944 and 1945.

(Registered reinsurance deducted)

Year and Province	Canadian		British		Foreign	
	Premiums	Losses	Premiums	Losses	Premiums	Losses
	$	$	$	$	$	$
1944						
Prince Edward Island	66,998	21,506	165,318	54,356	71,319	12,711
Nova Scotia	626,911	281,024	1,081,318	569,918	943,245	890,647
New Brunswick	396,530	246,195	918,023	535,236	760,825	418,306
Quebec	3,523,607	2,123,121	5,860,056	3,704,007	6,885,494	4,646,770
Ontario	5,370,617	2,531,122	6,853,375	3,162,737	7,672,756	4,598,389
Manitoba	1,189,562	428,222	839,642	288,163	1,058,482	370,404
Saskatchewan	1,366,587	423,798	567,866	224,623	1,054,317	380,451
Alberta	1,079,657	315,075	859,909	588,345	1,401,073	824,730
British Columbia	1,110,284	405,809	2,020,540	725,758	2,590,161	948,277
All other Canada[1]	16,847	−704	115,997	1,643	30,366	−13,098
Canada, 1944	**14,747,600**	**6,775,168**	**19,282,044**	**9,854,786**	**22,468,038**	**13,077,587**
1945						
Prince Edward Island	69,349	26,585	171,871	62,565	76,322	29,291
Nova Scotia	644,029	283,702	1,264,018	466,888	1,097,875	432,891
New Brunswick	437,777	188,859	1,078,888	504,324	930,550	507,210
Quebec	3,678,942	2,143,508	6,086,026	3,945,828	7,248,959	4,824,645
Ontario	5,446,535	2,675,350	6,967,359	3,794,067	8,234,644	4,660,537
Manitoba	1,300,358	468,667	968,126	464,662	1,230,505	491,371
Saskatchewan	1,288,320	254,797	633,204	162,437	1,207,244	306,721
Alberta	1,124,023	432,492	1,060,268	620,451	1,579,700	749,122
British Columbia	1,123,542	491,005	2,139,532	968,571	2,514,642	1,214,663
All other Canada[1]	13,199	5,136	126,500	115,749	31,922	24,409
Canada, 1945	**15,126,074**	**6,970,101**	**20,495,792**	**11,105,542**	**24,152,363**	**13,240,860**

[1] Yukon, Northwest Territories and also certain 'floater business' that cannot be apportioned to any one province.

For some years the Department of Insurance has compiled, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and losses by 27 classes of risks agreed upon on the basis of direct business written including reinsurance assumed. This experience for the five years 1940-44 is given in Table 4. For 1945, the returns were received on a "direct written" basis, excluding all reinsurance ceded or assumed, and the classification was changed and reduced to 21 classes. The 1945 experience is given in Table 5.

4.—Percentages of Net Losses Incurred to Net Premiums Written in Canada by All Companies Operating Under Dominion Registration, by Classes of Risks, 1940-44, with Five-Year Averages, 1940-44.

(Registered reinsurance deducted)

Class	1940	1941	1942	1943	1944	Five-Year Average 1940-44
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Dwellings—protected	35·29	35·77	40·02	39·01	45·89	40·44
Dwellings—unprotected	40·96	40·24	36·26	35·18	37·88	45·30
All other dwellings and farm property	45·81	43·40	38·01	36·64	41·87	41·01
All other two- or three-year risks	35·38	44·36	37·86	54·78	57·70	46·07
Mercantile risks, wholesale stores, and warehouses and contents	50·13	45·93	45·65	48·90	60·87	51·17
Mercantile risks, retail stores and contents	38·65	39·00	58·79	51·22	53·83	48·15
All other mercantile risks	22·41	24·84	41·46	42·53	39·19	33·79
Breweries and malt-houses	3·80	1·04	5·05	2·89	27·76	7·82
Boot and shoe factories	35·84	75·43	41·57	174·76	120·13	94·47
Canning factories	19·03	63·95	139·38	85·42	26·01	65·13
Confectionery and biscuit factories	21·84	60·59	49·38	209·34	35·01	68·89
Flour and oatmeal mills	46·01	58·58	32·21	167·80	76·06	76·47
Grain elevators	16·53	34·75	26·33	18·70	28·83	25·84
Laundries	47·51	41·27	54·29	75·32	114·05	69·00
Sawmills	39·93	34·29	35·01	83·17	34·64	47·47
Lumber yards	24·14	35·31	44·25	19·27	48·97	35·74
Machine shops and metal works	56·69	32·07	47·66	69·14	52·41	52·09
Mining risks	29·92	17·03	25·44	49·41	108·90	44·44
Pork-packing and -curing houses	331·92	34·82	44·52	177·23	32·56	107·75
Pulp and paper mills	22·84	23·47	36·55	32·09	42·27	31·81
Street-car barns	15·04	10·32	19·45	32·51	49·50	26·17
Tanneries	–	31·95	532·18	92·15	117·55	178·26
Wood-working factories	70·18	53·35	66·42	32·55	100·45	65·96
Woollen and knitting mills	81·70	44·15	170·57	93·36	130·26	108·61
All other manufacturing risks	41·77	36·91	57·92	76·53	147·30	76·45
All other one-year and short-term risks	39·56	35·56	42·26	51·68	49·18	44·01
Sprinklered risks of whatever nature or occupancy	26·25	27·77	27·10	39·53	36·67	31·54
Totals	**37·20**	**36·33**	**43·59**	**47·22**	**52·52**	**43·75**

5.—Percentages of Net Losses Incurred to Net Premiums Written in Canada by All Companies Operating Under Dominion Registration, by Classes of Risks, 1945

(Excluding all reinsurance ceded or assumed)

Class	1945	Class	1945
Dwellings, excluding farms—		Oil risks of all kinds	104·40
Protected brick	57·49	Saw and shingle mills	51·14
Protected frame	42·20	Lumber yards, pulpwood, standing timber	62·40
Unprotected	33·29	Wood-working plants	82·18
Farm buildings	45·39	Metal-working plants, garages, hangars	65·64
Churches, public buildings, educational and social service institutions	72·67	Mining risks	53·95
Warehouses	52·26	Railway and public utility risks	37·27
Retail stores, office buildings, banks, hotels	51·25	Miscellaneous manufacturing risks	87·63
Contents of above item	48·85	Miscellaneous non-manufacturing risks	60·83
Foods, food and beverage plants	42·57	Sprinklered risks of whatever nature or occupancy	39·55
Flour and cereal mills, grain elevators	88·83	Use and occupancy and profits, excluding rental insurance	78·12

Fire Losses.—Closely allied to the subject of fire insurance is the subject of fire losses. The Dominion Fire Prevention Association publishes, under the auspices of the Dominion Department of Insurance and with the co-operation of the Association of Canadian Fire Marshals, a report of the loss of life and property caused by fire, from which the information shown in Tables 6 and 7 has been summarized. In addition to the data here shown, the report gives such information as: per capita losses by provinces and by type of building, numbers of fires reported, origins of fires, and criminal investigations arising from fires.

In 1946, the per capita loss was greatest in Prince Edward Island, being $12·94 as against the Dominion average of $4·01. The uninsured losses amounted to $12,036,085, or 24·4 p.c. of the total as compared with 24·9 p.c. in 1945. The 55,397 fires reported in 1946, with total property loss amounting to $49,329,863, resulted in 408 fatalities—166 men, 78 women and 164 children.

6.—Fire Losses in Canada, 1926-46

Note.—For fire losses from 1923-25, see *Statistical Report of Fire Losses in Canada, 1926*, published by the Dominion Department of Insurance. An estimate of losses from 1898-1922 is published in *Statistical Bulletin No. 27 (1922)*, issued by the same Department.

Year	Property Loss	Loss per Capita	Deaths by Fire	Year	Property Loss	Loss per Capita	Deaths by Fire
	$	$	No.		$	$	No.
1926	38,295,096	4·15	288	1936	21,549,484	1·95	347
1927	32,254,084	3·29	465	1937	22,746,058	2·04	246
1928	36,402,018	3·79	314	1938	25,899,180	2·31	263
1929	47,499,746	4·85	233	1939	24,632,509	2·18	263
1930	46,109,875	4·70	311	1940	22,735,264	2·01	243
1931	47,117,334	4·54	251	1941	28,042,907	2·46	323
1932	42,193,815	4·06	285	1942	31,182,238	2·70	304
1933	32,676,314	3·15	254	1943	31,464,710	2·67	319
1934	25,437,840	2·44	268	1944	40,562,478	3·39	307
1935	23,221,521	2·12	293	1945	41,903,020[1]	3·46	391
				1946	49,329,863[1]	4·01	408

[1] In addition, losses to the extent of $9,867,000 in 1945 and $1,443,641 in 1946 occurred in National Defence and other Crown properties.

7.—Fire Losses and Percentages of Losses Covered by Insurance, by Provinces, 1937-46

Province	1937		1938		1939		1940		1941	
	Loss	P.C. Insured	Loss	P.C. Insured	Loss	P.C. Insured	Loss	P.C. Insured	Loss	P.C. Insured
	$'000		$'000		$'000		$'000		$'000	
P. E. Island	223	62·6	200	56·9	137	60·6	186	54·3	250	71·2
Nova Scotia	1,409	70·0	1,442	68·3	1,658	65·8	1,509	67·6	1,545	70·2
New Brunswick	866	63·6	836	74·7	1,210	74·0	925	71·0	2,353	48·4
Quebec	6,499	76·4	8,552	79·1	9,334	79·7	7,095	83·2	9,656	80·5
Ontario	8,135	79·5	9,397	85·5	7,923	82·8	8,100	84·8	8,727	81·4
Manitoba	893	89·6	1,053	90·9	800	90·1	1,029	91·0	1,213	90·8
Saskatchewan	1,056	64·4	502[1]	100·0[1]	717	77·8	658	96·9	834	78·4
Alberta	1,503	87·4	1,387	79·0	1,148	66·7	1,266	84·5	1,856	85·0
British Columbia	2,144	85·6	2,530	78·4	1,706	62·2	1,967	54·2	1,609	63·3
Totals	**22,728**	**78·1**	**25,899**	**81·3**	**24,633**	**77·9**	**22,735**	**80·3**	**28,043**	**77·2**

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[1] This amount was given as the total loss, no uninsured losses being reported for Saskatchewan in 1938.

7.—Fire Losses and Percentages of Losses Covered by Insurance, by Provinces, 1937-46—concluded

Province	1942		1943		1944		1945		1946	
	Loss	P.C. Insured	Loss	P.C. Insured	Loss	P.C. Insured	Loss	P.C. Insured	Loss	P.C. Insured
	$'000		$'000		$'000		$'000		$'000	
P. E. Island	164	84·64	116	55·0	247	60·1	257	59·8	983	81·0
Nova Scotia	1,954	73·36	1,628	69·0	2,841	62·0	1,759	72·5	1,116	43·8
New Brunswick	1,414	90·07	1,281	63·5	2,028	60·0	1,835	72·9	1,457	64·0
Quebec	11,271	66·41	10,324	80·4	14,213	72·9	14,034	79·3	13,413	77·7
Ontario	10,679	62·17	10,664	83·7	13,357	81·8	14,464	78·8	13,212	31·2
Manitoba	643	83·56	1,352	91·0	1,159	83·2	1,160	86·9	1,661	87·0
Saskatchewan	968	39·39	893	93·0	1,219	83·4	939	74·1	1,278	69·5
Alberta	1,565	75·15	1,199	80·0	1,896	91·1	2,208	81·7	2,027	79·7
British Columbia	2,524	74·36	4,008	51·5	3,602	57·7	5,247	51·0	2,128	62·0
Yukon and N.W.T.[1]	-	-	-	-	-	-	-	-	49	43·4
Totals	**31,182**	**77·25**	**31,465**	**77·7**	**40,562**	**74·5**	**41,903**	**75·1**	**37,324**	**75·6**

[1] First reported in 1946.

Subsection 3.—Finances of Fire Insurance Companies

Tables **8** to **10** show for recent years the assets, liabilities, income and expenditure of registered companies transacting fire insurance in Canada. The majority of fire insurance companies also transact casualty insurance dealt with in Section 3 of this Chapter. Owing to the fact that it is impossible for such companies to allocate their assets and liabilities and their general income and expenditure among the various types of business transacted, totals only are given here. Table **27**, p. 1098 gives similar information for registered companies whose transactions are confined to casualty insurance.

8.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1941-45

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
Canadian Companies (In All Countries)					
Real estate	1,867,789	1,833,662	1,958,504	1,710,883	1,874,593
Loans on real estate	2,882,921	2,748,791	2,270,836	2,284,582	2,105,872
Bonds, debentures and stocks	75,615,661	80,550,247	86,510,962	89,698,509	97,076,704
Agents' balances and premiums outstanding	5,307,446	6,021,113	5,185,794	5,781,397	6,505,708
Cash	10,187,048	9,248,361	10,418,705	10,829,062	11,849,935
Interest and rents	634,034	658,408	624,908	624,739	679,550
Other assets	2,790,480	3,378,139	3,664,294	5,077,414	4,307,338
Totals, Canadian Companies	**99,285,379**	**104,438,721**	**110,634,003**	**116,006,586**	**124,399,700**
British Companies (In Canada)					
Real estate	1,613,201	1,540,080	1,465,834	950,427	929,527
Loans on real estate	1,187,896	1,130,940	1,022,141	3,669	28,758
Bonds, debentures and stocks	45,555,927	46,976,611	47,914,859	47,133,415	49,866,285
Agents' balances and premiums outstanding	4,386,098	3,881,883	4,043,191	4,574,072	4,819,942
Cash	7,322,294	5,961,404	5,996,493	6,919,414	7,034,461
Interest and rents	228,079	214,211	199,024	165,873	172,661
Other assets in Canada	1,104,336	1,360,110	1,282,180	1,628,590	2,039,276
Totals, British Companies	**61,397,831**	**61,065,239**	**61,923,722**	**61,375,460**	**64,890,910**

8.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1941-45—concluded

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
Foreign Companies (In Canada)					
Real estate	Nil	Nil	Nil	Nil	Nil
Loans on real estate	11,900	11,700	11,450	8,000	7,750
Bonds, debentures and stocks	37,822,648	41,218,108	44,781,193	47,189,726	52,602,388
Agents' balances and premiums outstanding	3,778,905	3,895,640	3,635,151	4,421,711	4,401,43
Cash	13,071,607	12,624,985	10,472,994	10,818,160	12,013,101
Interest and rents	203,726	204,396	198,001	215,240	240,396
Other assets in Canada	194,945	243,340	402,886	1,392,041	1,478,899
Totals, Foreign Companies	**55,083,731**	**58,198,169**	**59,501,675**	**64,044,878**	**70,743,970**

9.—Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1941-45

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
Canadian Companies (In All Countries)					
Reserves for unsettled losses	8,014,395	9,274,922	10,356,038	12,026,543	13,679,331
Reserves of unearned premiums	19,132,926	19,818,045	20,290,350	22,165,363	24,964,320
Sundry items	12,752,449	13,876,780	14,669,731	14,647,168	15,593,120
Totals, Canadian Companies	**39,899,770**	**42,969,747**	**45,316,119**	**48,839,074**	**54,236,771**
Excess of assets over liabilities, excluding capital	59,385,609	61,468,974	65,317,884	67,167,512	70,162,929
Capital stock paid up	19,169,440	19,072,815	19,072,815	19,107,815	19,022,740
British Companies (In Canada)					
Reserves for unsettled losses	4,310,347	5,012,739	5,428,270	6,421,046	7,885,706
Reserves of unearned premiums	18,619,214	18,843,113	18,903,902	21,185,456	23,739,943
Sundry items	2,685,225	3,480,250	3,253,620	3,158,040	3,185,419
Totals, British Companies	**25,614,786**	**27,336,102**	**27,585,792**	**30,764,542**	**34,811,068**
Excess of assets over liabilities, excluding capital	35,783,045	33,729,137	34,337,930	30,610,918	30,079,842
Foreign Companies (In Canada)					
Reserves for unsettled losses	2,332,062	3,518,288	3,965,541	5,212,799	6,010,366
Reserves of unearned premiums	16,522,434	17,786,983	18,401,808	20,694,123	23,544,748
Sundry items	1,886,753	2,153,052	2,133,744	2,982,601	3,430,702
Totals, Foreign Companies	**20,741,249**	**23,458,323**	**24,501,093**	**28,889,523**	**32,985,816**
Excess of assets over liabilities, excluding capital	34,342,482	34,739,846	35,000,582	35,155,355	37,758,154

10.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1941-45.

Item	1941	1942	1943	1944	1945
INCOME	$	$	$	$	$
Canadian Companies (In All Countries)					
Net premiums written, fire and other insurance	34,872,636	36,306,765	35,866,506	39,031,985	42,906,033
Interest, dividends and rents earned	3,327,016	3,408,274	3,430,376	3,492,647	3,593,237
Sundry items	[1]	[1]	[1]	[1]	[1]
Totals, Canadian Companies	**38,199,652**	**39,715,039**	**39,296,882**	**42,524,632**	**46,499,270**
British Companies (In Canada)					
Net premiums written	30,660,858	29,035,998	29,143,004	33,545,317	36,144,466
Interest, dividends and rents earned	1,010,905	860,786	840,132	742,999	790,256
Sundry items	[1]	[1]	[1]	[1]	[1]
Totals, British Companies	**31,671,763**	**29,896,784**	**29,983,136**	**34,288,316**	**36,934,722**
Foreign Companies (In Canada)					
Net premiums written	26,106,170	25,770,191	26,165,440	31,843,023	33,805,336
Interest, dividends and rents earned	1,102,738	1,097,553	1,249,104	1,221,060	1,359,692
Sundry items	[1]	[1]	[1]	[1]	[1]
Totals, Foreign Companies	**27,208,908**	**26,867,744**	**27,414,544**	**33,064,083**	**35,165,028**
EXPENDITURE					
Canadian Companies (In All Countries)					
Incurred for claims (fire)	5,780,342	6,664,140	6,592,774	8,029,734	8,488,190
General expenses (fire)	6,917,920	6,882,808	6,946,734	7,588,183	8,108,848
Incurred for claims (casualty)	8,930,847	9,753,718	9,302,636	9,909,110	11,176,408
General expenses (casualty)	8,188,532	8,599,267	8,639,456	8,973,919	9,985,101
Dividends or bonuses to shareholders	1,714,835	1,479,112	1,509,672	1,409,422	1,507,615
Premium taxes and fees	944,749	968,629	987,818	1,124,965	1,122,947
Income war tax	733,781	771,028	768,667	534,375	430,582
Excess profits tax	844,949	1,161,193	1,179,519	848,977	532,465
Dividends to policyholders	80,250	261,004	236,942	282,330	261,876
British and foreign war taxes	287,661	271,602	610,738	378,201	122,215
Totals, Canadian Companies	**34,811,656**[2]	**36,912,501**[3]	**36,874,956**[4]	**39,104,216**[5]	**41,836,247**[3]
Excess of income over expenditure	3,387,996	2,802,538	2,421,926	3,420,416	4,663,023
British Companies (In Canada)					
Incurred for claims (fire)	6,212,583	6,992,162	7,921,087	9,854,786	11,105,542
General expenses (fire)	7,982,633	7,627,252	7,694,425	8,479,429	9,064,407
Incurred for claims (casualty)	5,418,481	5,070,589	5,276,766	6,023,953	7,215,277
General expenses (casualty)	5,692,827	5,676,611	5,723,603	6,096,821	6,683,517
Premium taxes and fees	1,035,370	923,027	903,548	1,011,887	1,046,323
Income war tax	293,115	511,975	312,253	105,385	35,889
Excess profits tax	390,748	920,426	593,548	149,752	5,820
Totals, British Companies	**27,025,757**	**27,722,042**	**28,425,230**	**31,722,013**	**35,156,775**
Excess of income over expenditure	4,646,006	2,174,742	1,557,906	2,566,303	1,777,947
Foreign Companies (In Canada)					
Incurred for claims (fire)	7,422,645	8,514,275	9,385,849	13,077,587	13,240,860
General expenses (fire)	7,517,072	7,366,244	7,517,533	8,629,549	9,210,464
Incurred for claims (casualty)	3,464,953	3,923,469	4,580,220	6,151,913	4,353,741
General expenses (casualty)	2,542,579	2,970,003	2,818,002	3,470,294	3,543,822
Premium taxes and fees	878,994	809,749	861,550	1,003,305	1,048,481
Income war tax	155,349	183,101	112,057	22,061	38,689
Excess profits tax	271,436	259,952	185,894	39,362	81,328
Dividends or savings credited to subscribers	777,266	721,576	682,726	709,425	735,323
Totals, Foreign Companies	**23,030,294**	**24,748,369**	**26,143,831**	**33,103,496**	**32,252,708**
Excess of income over expenditure	4,178,614	2,119,375	1,270,713	−39,413	2,912,320

[1] Included with "interest". [2] Includes $100,000 donation to Government, $100,000 preference stock redeemed and $187,790 repaid to shareholders. [3] Includes $100,000 preference stock redeemed. [4] Includes $100,000 unallocatable expense. [5] Includes $25,000 repayment of premium on capital.

Section 2.—Life Insurance

The life insurance in force, in Canada, in companies registered by the Dominion in 1946 was over $10,812,000,000, an increase of over $1,061,000,000 over the figure for 1945. There has been not only an increase in new business, but also a greater stability in business written compared with the depression in early war years. The effect of these factors is reflected in the ratio of gain in business in force expressed as a percentage of the amount in force at the beginning of the same year.

Year	*Net in Force at Beginning of Year*	*Gain in Force for the Year*	*Percentage Gain*
	$	$	
1930	6,157,000,000	335,000,000	5·4
1935	6,221,000,000	38,000,000	0·6
1939	6,630,000,000	146,000,000	2·2
1940	6,776,000,000	199,000,000	2·9
1941	6,975,000,000	374,000,000	5·4
1942	7,349,000,000	527,000,000[1]	7·2
1943	7,876,000,000	658,000,000	8·4
1944	8,534,000,000	605,000,000	7·1
1945	9,139,000,000	612,000,000	6·7
1946	9,751,000,000	1,061,000,000	10·9

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[1] Excluding $44,000,000 adjustment arising out of method of reporting juvenile insurance.

It is interesting to note the effect of the War of 1939-45 on mortality rates. Even including war losses, the mortality rate did not greatly change, not nearly so much as it did during the War of 1914-18. The improvement in civilian mortality in recent years appears to have substantially counterbalanced the additional mortality brought about by war service. The following figures are derived from the annual statements filed with the Dominion Department of Insurance by life insurance companies.

Year	*Rate of Mortality per 1,000 Lives Exposed to Risk*	*Year*	*Rate of Mortality per 1,000 Lives Exposed to Risk*
1913	8·61	1938	6·42
1914	8·41	1939	6·44
1915	8·66	1940	6·59
1916	10·45	1941	6·77
1917	10·85	1942	6·85
1918	13·90	1943	7·15
1919	8·08	1944	8·03
1920	7·93	1945	7·45

Subsection 1.—Grand Total of Life Insurance in Canada

In addition to the business transacted by life insurance companies registered by the Dominion, a considerable volume of business is also transacted by companies licensed by the provinces. Statistics of these provincial companies have been collected since 1915 by the Department of Insurance. Table **11** summarizes the volume of business transacted by Canadian, British and foreign life companies and fraternal societies, whether registered by the Dominion or licensed by the provinces.

11.—Dominion and Provincial Life Insurance in Canada, by Class of Licensee and by Type of Company, 1945

Item	New Policies Effected (net)	Net Insurance in Force, Dec. 31	Net Premiums Received	Net Claims Paid
	$	$	$	$
CLASS OF LICENSEE				
Dominion Licensees—				
Life companies	1,002,576,955	9,751,040,835	261,176,100	97,638,990
Fraternals	28,879,390	246,121,776	4,610,018	3,873,936
Totals, Dominion Licensees	**1,031,456,345**	**9,997,162,611**	**265,786,118**	**101,512,926**
Provincial Licensees—				
Provincial Companies within Province by Which They are Incorporated—				
Life companies	48,937,916	187,780,193	4,875,975	1,138,891
Fraternals	13,232,360	85,350,607	1,829,012	1,189,150
Provincial Companies in Provinces Other Than Those by Which They are Incorporated—				
Life companies	5,933,991	25,262,401	675,565	215,481
Fraternals	6,829,076	47,681,263	878,985	817,731
Totals, Provincial Licensees	**74,933,343**	**346,074,464**	**8,259,537**	**3,361,253**
Grand Totals	**1,106,389,688**	**10,343,237,075**	**274,045,655**	**104,874,179**
TYPE OF COMPANY				
Canadian Life—				
Dominion	682,481,020	6,440,615,383	166,267,208	60,336,606
Provincial	54,871,907	213,042,594	5,551,540	1,354,372
Canadian Fraternal—				
Dominion	17,772,650	151,255,637	2,428,641	2,660,810
Provincial	20,061,436	133,031,870	2,707,997	2,006,881
British life	18,326,511	183,779,511	5,239,766	2,620,057
Foreign life	301,769,424	3,126,645,941	89,669,126	34,682,327
Foreign fraternal	11,106,740	94,866,139	2,181,377	1,213,126

Subsection 2.—Historical and Operational Statistics of Dominion Registered Life Insurance Companies

Historical Statistics of Life Insurance.—The net life insurance in force of all companies registered by the Dominion was only $35,680,082 in 1869, while in 1946 it was $10,812,294,224.* The amount per head of the estimated population of Canada has more than doubled since 1923—an evidence of the general recognition of the value of life insurance for the adequate protection of dependents against misfortune. Notable also is the fact that in this field British companies, the leaders in 1869, have fallen far behind the Canadian and the foreign companies.

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* This total does not include fraternal insurance.

12.—Life Insurance in Force and Effected in Canada by Companies Operating Under Dominion Registration (Fraternal Insurance Excluded)[1], 1900-46

Note.—Figures for the years 1869-99 are given at p. 958 of the 1938 Year Book, and figures for the intervening years from 1901-29 at p. 855 of the 1942 edition.

Year	Net Amounts in Force				Insurance in force per Head of Estimated Population[2]	Net Amount of New Insurance Effected during Year
	Canadian Companies	British Companies	Foreign Companies	Total		
	$	$	$	$	$	$
1900	267,151,086	39,485,344	124,433,416	431,069,846	81·32	67,729,115
1905	397,946,902	43,809,211	188,578,127	630,334,240	105·02	104,719,585
1910	565,667,110	47,816,775	242,629,174	856,113,059	122·51	150,785,305
1915	829,972,809	58,087,018	423,556,850	1,311,616,677	164·34	218,205,427
1920	1,664,348,605	76,883,090	915,793,798	2,657,025,493	310·55	630,110,900
1925	2,672,989,676	108,565,248	1,377,464,924	4,159,019,848	447·50	712,091,889
1930	4,319,370,209	117,410,860	2,055,502,125	6,492,283,194	636·00	884,749,748
1931	4,409,707,938	119,262,511	2,093,297,344	6,622,267,793	638·23	782,716,064
1932	4,311,747,692	115,831,319	2,044,029,535	6,471,608,546	615·76	653,249,366
1933	4,160,351,570	113,807,916	1,973,466,488	6,247,625,974	587·57	578,585,659
1934	4,139,796,088	116,745,642	1,964,184,199	6,220,725,929	579·16	595,194,820
1935	4,164,893,298	123,148,855	1,971,116,251	6,259,158,404	577·15	588,353,277
1936	4,256,850,150	129,940,311	2,016,247,016	6,403,037,477	584·75	618,264,819
1937	4,304,631,608	137,862,702	2,099,130,736	6,541,625,046[3]	592·27	671,957,904
1938	4,363,517,357	140,838,697	2,125,827,540	6,630,183,594[3]	594·53	626,989,339
1939	4,469,776,480	145,373,802	2,161,112,305	6,776,262,587	601·43	588,576,140
1940	4,609,213,977	145,603,299	2,220,505,184	6,975,322,460	612·89	590,205,536
1941	4,835,925,659	145,597,309	2,367,027,774	7,348,550,742	638·62	688,344,283
1942	5,184,568,369	152,289,487	2,538,897,449	7,875,755,305	675·80	818,558,946
1943	5,586,515,285	162,287,617	2,785,290,816	8,534,093,718	722·49	887,522,851
1944	6,001,984,634	171,997,834	2,965,501,763	9,139,484,231	763·21	900,501,491
1945	6,440,615,383	183,779,511	3,126,645,941	9,751,040,835	804·61	1,002,576,955
1946[4]	7,201,285,815	205,626,216	3,405,382,193	10,812,294,224	878·55	1,393,522,667

[1] For statistics of fraternal insurance, see pp. 1089-1091. [2] Based on estimates of population given at p. 100. [3] During 1937 approximately $85,000,000, and during 1938 approximately $60,000,000 were transferred from insurance in force in Canada. These amounts represent mainly transfers to business out of Canada of certain reinsurances previously classed as Canadian business. They also include transfers to annuities of contracts providing for combined insurance and annuity benefits or options. [4] Subject to revision.

Life insurance business was transacted in Canada during 1945 by 41 active companies registered by the Dominion, including 28 Canadian, 3 British and 10 foreign companies; one of these foreign companies was registered only for the acceptance of reinsurance. In addition, there were 9 British and 5 foreign companies registered to write insurance; these had practically ceased to write new insurance. Two other foreign companies were registered in 1945 but transacted no business in Canada in that year.

The operations analysed in the following tables of this Subsection, with the exception of Table **16**, cover only those companies under Dominion registration and are exclusive of fraternal organizations and provincial licensees. However, as indicated in Table **11**, their operations cover about 96 p.c. of the life insurance in force in Canada.

13.—Life Insurance in Canada by Companies Operating under Dominion Registration, 1943-45

Year and Nationality of Company	Policies Effected		Policies in Force		Net Premium Income	Net Claims Paid[1]
	No.	Net Amount	No.	Net Amount		
		$		$	$	$
1943						
Canadian	275,583	578,856,066	2,719,576	5,586,515,285	145,575,912	50,975,556
British	5,881	15,190,620	141,277	162,287,617	4,466,810	1,894,247
Foreign	387,278	293,476,165	4,390,649	2,785,290,816	78,657,280	29,030,261
Totals, 1943	**668,742**	**887,522,851**	**7,251,502**	**8,534,093,718**	**228,700,002**	**81,900,064**
1944						
Canadian	275,309	601,896,540	2,876,145	6,001,984,634	155,626,868	57,050,240
British	6,484	15,944,248	141,357	171,997,834	4,654,059	2,576,808
Foreign	375,336	282,660,703	4,525,934	2,965,501,763	84,145,956	32,939,911
Totals, 1944	**657,129**	**900,501,491**	**7,543,436**	**9,139,484,231**	**244,426,883**	**92,566,959**
1945						
Canadian	299,437	682,481,020	3,047,549	6,440,615,383	166,267,208	60,336,606
British	6,936	18,326,511	141,499	183,779,511	5,239,766	2,620,057
Foreign	376,171	301,769,424	4,637,124	3,126,645,941	89,669,126	34,682,327
Totals, 1945	**682,544**	**1,002,576,955**	**7,826,172**	**9,751,040,835**	**261,176,100**	**97,638,990**

[1] Death claims, matured endowments and disability claims.

14.—Progress of Life Insurance in Canada Transacted under Dominion Registration, 1941-45

Item	1941	1942	1943	1944	1945
Canadian Companies—					
Policies effected No.	243,024	271,037	275,583	275,309	299,437
Policies in force at end of each year. “	2,416,747	2,557,701	2,719,576	2,876,145	3,047,549
Policies become claims “	24,148	24,233	26,702	32,359	31,941
Net amounts of policies effected $	448,528,133	554,211,294	578,856,066	601,896,540	682,481,020
Net amounts of policies in force $	4,835,925,659	5,184,568,369	5,586,515,285	6,001,984,634	6,440,615,383
Net amounts of policies become claims $	47,904,825	51,136,519	54,133,244	65,685,567	65,384,684
Net amounts of premiums $	129,111,042	136,261,960	145,575,912	155,626,868	166,267,208
Net claims paid[1] $	46,578,592	50,503,188	50,975,556	57,050,240	60,336,606
Net outstanding claims $	10,800,415	12,247,606	14,088,335	17,193,178	17,069,149
British Companies—					
Policies effected No.	3,950	5,158	5,881	6,484	6,936
Policies in force at end of each year. “	143,144	141,168	141,277	141,357	141,499
Policies become claims “	2,728	3,482	3,001	3,125	2,953
Net amounts of policies effected $	9,601,527	13,878,930	15,190,620	15,944,248	18,326,511
Net amounts of policies in force $	145,597,309	152,289,487	162,287,617	171,997,834	183,779,511
Net amounts of policies become claims $	2,995,867	2,177,806	2,107,040	2,920,813	2,623,828
Net amounts of premiums $	4,201,066	4,264,843	4,466,810	4,654,059	5,239,766
Net claims paid[1] $	2,306,524	2,669,043	1,894,247	2,576,808	2,620,057
Net outstanding claims $	1,087,521	526,445	719,375	941,768	740,255
Foreign Companies—					
Policies effected No.	416,141	390,700	387,278	375,336	376,171
Policies in force at end of each year. “	4,099,983	4,235,023	4,390,649	4,525,934	4,637,124
Policies become claims “	67,511	68,049	78,166	85,887	86,375
Net amounts of policies effected $	230,214,623	250,468,722	293,476,165	282,660,703	301,769,424
Net amounts of policies in force $	2,367,027,774	2,538,897,449	2,785,290,816	2,965,501,763	3,126,645,941
Net amounts of policies become claims $	24,568,919	25,010,277	28,610,510	32,351,099	34,283,865
Net amounts of premiums $	70,147,130	75,303,452	78,657,280	84,145,956	89,669,126
Net claims paid[1] $	26,196,892	25,888,185	29,030,261	32,939,911	34,682,327
Net outstanding claims $	2,666,834	3,323,193	4,245,994	4,140,836	4,187,975

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[1] Death claims, matured endowments and disability claims.

14.—Progress of Life Insurance in Canada Transacted under Dominion Registration, 1941-45—concluded

Item		1941	1942	1943	1944	1945
All Companies—						
Policies effected	No.	663,115	666,895	668,742	657,129	682,544
Policies in force at end of each year	“	6,659,874	6,933,892	7,251,502	7,543,436	7,826,172
Policies become claims	“	94,387	95,764	107,869	121,371	121,269
Net amounts of policies effected	$	688,344,283	818,558,946	887,522,851	900,501,491	1,002,576,955
Net amounts of policies in force	$	7,348,550,742	7,875,755,305	8,534,093,718	9,139,484,231	9,751,040,835
Net amounts of policies become claims	$	75,469,611	78,324,602	84,850,794	100,957,479	102,292,377
Net amounts of premiums	$	203,459,238	215,830,255	228,700,002	244,426,883	261,176,100
Net claims paid[1]	$	75,082,008	79,060,416	81,900,064	92,566,959	97,638,990
Net outstanding claims	$	14,554,770	16,097,244	19,053,704	22,275,782	21,997,379

[1] Death claims, matured endowments and disability claims.

15.—Ordinary, Industrial and Group Life Insurance Policies in Force and Effected in Canada by Companies Operating under Dominion Registration, 1945

Type of Policy and Nationality of Company	New Policies Effected			Policies in Force		
	No.	Net Amount	Average Amount of a Policy	No.	Net Amount	Average Amount of a Policy
		$	$		$	$
Ordinary Policies						
Canadian	247,652	592,885,011	2,394	2,411,612	5,379,298,367	2,231
British	6,936	18,326,511	2,642	66,302	170,464,242	2,571
Foreign	120,887	199,123,858	1,647	1,202,037	1,824,497,195	1,518
Totals, Ordinary Policies	**375,475**	**810,335,380**	**2,158**	**3,679,951**	**7,374,259,804**	**2,004**
Industrial and Group Policies						
Canadian	51,514	47,950,457	931	632,706	377,913,423	597
British	Nil	-	-	75,192	12,080,269	161
Foreign	255,054	85,985,014	337	3,433,734	922,982,317	269
Totals, Industrial and Group Policies	**306,568**	**133,935,471**	**437**	**4,141,632**	**1,312,976,009**	**317**

16.—Insurance Death Rates in Canada, 1942-45

Type of Insurer	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000
	1942			1943		
	No.	No.		No.	No.	
All companies, ordinary	2,903,078	19,417	6·7	3,111,509	21,267	6·8
All companies, industrial	3,914,079	27,272	7·0	4,003,160	29,615	7·4
Fraternal benefit societies	229,770	3,496	15·2	254,030	3,785	14·9
Totals	**7,046,927**	**50,185**	**7·1**	**7,368,699**	**54,667**	**7·4**
	1944			1945		
	No.	No.		No.	No.	
All companies, ordinary	3,339,564	26,897	8·1	3,572,018	26,020	7·3
All companies, industrial	4,083,770	32,721	8·0	4,137,095	31,379	7·6
Fraternal benefit societies	265,712	3,777	14·2	283,587	3,816	13·5
Totals	**7,689,046**	**63,395**	**8·2**	**7,992,700**	**61,215**	**7·7**

Subsection 3.—Finances of Life Insurance Companies

The financial statistics of the following tables cover only life insurance companies with Dominion registration and do not include fraternal organizations and provincial licensees. In the cases of British and foreign companies, the figures apply only to their assets, liabilities and operations in Canada but, in the case of Canadian companies, assets and liabilities, income received and expenditure made, arise in part from business abroad.

17.—Assets of Canadian Life Companies with Dominion Registration and Assets in Canada of British and Foreign Life Companies, 1941-45

NOTE.—One British company transacting fire insurance in Canada transacts also life insurance in Canada, and inasmuch as a separation of assets has not been made between these two classes, the assets in Canada are not included here, but are included in the assets of British companies shown in Table 8, p. 1079.

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
Canadian Companies [1]					
Real estate	67,365,034	59,734,780	52,187,032	41,263,835	36,221,517
Real estate held under agreements of sale	30,590,391	32,266,517	30,855,034	28,245,920	23,682,724
Loans on real estate	303,635,654	293,617,264	274,950,311	256,021,923	266,830,202
Loans on collaterals	45,180	52,782	20,207	23,327	50,634
Policy loans	234,581,058	220,739,933	200,100,880	183,520,977	176,611,493
Bonds, debentures and stocks	1,828,225,622	2,013,113,261	2,250,955,172	2,517,911,770	2,823,785,410
Interest and rent due and accrued	30,040,433	30,649,587	29,077,729	28,672,576	29,324,740
Cash	40,531,944	30,559,412	32,440,072	29,735,147	36,262,205
Outstanding and deferred premiums	45,285,249	46,326,738	47,989,863	51,161,312	52,957,821
Other assets	3,283,665	3,265,522	3,389,378	3,517,376	4,025,247
Totals, Canadian Companies[2]	**2,583,584,230**	**2,730,325,796**	**2,921,965,678**	**3,140,074,163**	**3,449,751,993**
British Companies					
Real estate	929,364	816,209	751,747	454,220	386,660
Real estate held under agreements of sale	1,741	11,657	15,670	14,385	12,937
Loans on real estate	7,277,247	6,573,986	6,093,272	5,318,644	5,032,282
Loans on collaterals	13,300	13,300	13,300	13,300	[3]
Policy loans	3,096,635	2,866,709	2,618,499	2,296,697	2,100,602
Bonds, debentures and stocks	48,288,400	46,861,869	51,690,826	53,923,196	58,483,266
Interest and rent due and accrued	547,295	520,689	449,413	398,836	369,118
Cash	1,391,708	1,055,095	1,033,530	1,342,087	1,331,945
Outstanding and deferred premiums	456,525	494,011	486,494	500,172	566,337
Other assets	21,054	5,151	2,745	3,617	7,676
Totals, British Companies	**62,023,269**	**59,218,676**	**63,155,496**	**64,265,154**	**68,290,823**
Foreign Companies					
Real estate	4,750,005	2,840,327	2,643,794	2,482,447	1,484,729
Real estate held under agreements of sale	[3]	[3]	[3]	[3]	[3]
Loans on real estate	19,087,557	18,413,291	18,018,529	12,806,994	7,596,887
Loans on collaterals	[3]	[3]	[3]	[3]	[3]
Policy loans	52,980,393	50,493,067	47,123,506	43,765,493	41,740,177
Bonds, debentures and stocks	474,263,435	507,515,985	572,418,156	618,309,566	680,354,486
Interest and rent due and accrued	6,764,145	7,114,264	6,874,344	7,372,756	7,399,719
Cash	14,446,971	19,727,299	15,824,091	15,199,265	18,243,645
Outstanding and deferred premiums	9,418,481	10,127,401	11,063,244	11,905,054	12,927,754
Other assets	9,651	12,657	9,351	63,499	66,992
Totals, Foreign Companies	**581,720,638**	**616,244,291**	**673,975,015**	**711,905,074**	**769,814,389**

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[1] A detailed classification of assets showing investments of Canadian companies and giving the percentage of the total in each group and sub-group for 1943, 1944 and 1945 will be found at p. xxiv of the Report of the Superintendent of Insurance, Vol. II, for the year ended Dec. 31, 1945. [2] Book values. The totals carried into the balance sheets, including some market (or authorized) values of these assets, were: $2,582,676,124 in 1941; $2,729,419,685 in 1942; $2,921,471,387 in 1943; $3,140,001,113 in 1944; and $3,449,751,993 in 1945. [3] None reported.

18.—Liabilities of Canadian Life Companies with Dominion Registration and Liabilities in Canada of British and Foreign Life Companies, 1941-45

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
Canadian Companies					
Outstanding claims	24,950,803	29,653,137	33,125,562	39,851,589	42,698,262
Reserve under contracts in force	2,144,245,002	2,255,545,175	2,394,677,482	2,547,453,501	2,725,376,272
Sundry liabilities	333,336,430	362,071,672	404,729,168	442,255,524	538,603,430
Totals, Canadian Companies[1]	**2,502,532,235**	**2,647,269,984**	**2,832,532,212**	**3,029,560,614**	**3,306,677,964**
Surpluses of assets excluding capital	80,143,889	82,149,701	88,939,175	110,440,499	143,074,029
Capital stock paid up	11,783,410	11,846,170	11,852,230	11,853,660	11,878,900
British Companies					
Outstanding claims	1,087,521	526,445	719,375	941,769	740,255
Reserve under contracts in force	40,602,219	42,147,894	43,799,317	46,976,119	50,628,298
Sundry liabilities	668,167	645,759	679,830	915,701	1,238,456
Totals, British Companies	**42,357,907**	**43,320,098**	**45,198,522**	**48,833,589**	**52,607,009**
Surpluses of assets in Canada[2]	19,666,206	15,899,422	17,957,819	15,432,410	15,684,698
Foreign Companies					
Outstanding claims	2,666,834	3,323,194	4,245,996	4,140,835	4,187,975
Reserve under contracts in force	479,013,186	507,746,674	542,664,034	581,778,494	622,351,836
Sundry liabilities	26,497,575	27,100,411	30,876,602	35,319,871	38,811,479
Totals, Foreign Companies	**508,177,595**	**538,170,279**	**577,786,632**	**621,239,200**	**665,351,290**
Surpluses of assets in Canada	73,543,043	78,074,012	96,188,383	90,665,874	104,463,099

[1] Not including capital. [2] Excludes one company which has not made a separation of its assets as between fire and life branches.

19.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1941-45.

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
INCOME					
Canadian Companies					
Net premium income (including sinking funds)	251,496,379	249,754,350	267,104,940	284,552,359	309,416,004
Consideration for annuities	32,109,773	30,019,087	34,482,064	45,300,425	60,691,070
Interest, dividends and rents	102,253,123	103,712,818	112,251,402	119,689,333	121,285,219
Sundry items	55,432,535	59,099,364	72,239,576	84,512,379	116,262,083
Totals, Canadian Companies[1]	**441,291,810**	**442,585,619**	**486,077,982**	**534,054,496**	**607,654,376**
British Companies					
Net premium income (including sinking funds)	4,203,879	4,267,656	4,466,810	4,654,059	5,239,766
Consideration for annuities	193,531	228,216	475,887	1,079,410	1,430,955
Interest, dividends and rents	2,237,193	2,175,669	2,214,619	1,960,249	1,979,686
Sundry items	120,142	140,155	915,987	629,675	481,257
Totals, British Companies	**6,754,745**	**6,811,696**	**8,073,303**	**8,323,393**	**9,131,664**
Foreign Companies					
Net premium income	70,147,130	75,303,452	78,657,280	84,145,956	89,669,126
Consideration for annuities	1,364,894	1,530,834	1,635,024	2,000,012	2,066,772
Interest, dividends and rents	22,308,314	22,682,519	23,495,153	23,833,437	25,457,635
Sundry items	5,601,136	6,588,260	7,161,591	8,408,931	7,509,551
Totals, Foreign Companies	**99,421,474**	**106,105,065**	**110,949,048**	**118,388,336**	**124,703,084**

[1] Includes income on business outside of Canada.

19.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1941-45—concluded.

Item	1941	1942	1943	1944	1945
	$	$	$	$	$
EXPENDITURE					
Canadian Companies					
Payments to policyholders	203,939,306	188,369,179	180,607,200	194,358,643	212,774,049
General expenses	59,413,512	59,814,452	63,492,701	68,515,005	74,693,716
Dividends to shareholders	1,412,099	1,386,262	1,315,301	1,324,171	1,332,458
Other disbursements	34,698,921	33,326,914	32,231,708	33,594,309	43,419,189
Totals, Canadian Companies [1]	**299,463,838**	**282,896,807**	**277,646,910**	**297,792,128**	**332,219,412**
Excess of income over expenditure	141,827,972	159,688,812	208,431,072	236,262,368	275,434,964
British Companies					
Payments to policyholders	3,406,555	3,664,351	2,687,256	3,517,715	4,015,885
General expenses	1,084,970	1,155,025	1,274,665	1,375,639	1,648,302
Other disbursements	109,366	131,081	102,650	163,096	166,548
Totals, British Companies	**4,600,891**	**4,950,457**	**4,064,571**	**5,056,450**	**5,830,735**
Excess of income over expenditure	2,153,854	1,861,239	4,008,732	3,266,943	3,300,929
Foreign Companies					
Payments to policyholders	50,687,247	47,125,627	45,598,531	50,158,688	54,774,067
General expenses	15,549,341	16,225,493	16,922,479	17,342,564	18,207,681
Other disbursements	3,090,051	3,187,347	2,850,578	3,184,797	3,262,611
Totals, Foreign Companies	**69,326,639**	**66,538,467**	**65,371,588**	**70,686,049**	**76,244,359**
Excess of income over expenditure	30,094,835	39,566,598	45,577,460	47,702,287	48,458,725

[1] Includes expenditure on business outside of Canada.

Subsection 4.—Life Insurance Effected through Fraternal Benefit Societies

In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 20 gives statistics of life insurance effected with fraternal benefit societies by Canadian members, together with statistics of assets, liabilities, income and expenditure relating to the whole business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. The benefit funds of each society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries, London; of the Faculty of Actuaries in Scotland; of the Actuarial Society of America; or of the American Institute of Actuaries) and, unless the actuary certifies to the solvency of each fund, a readjustment of rates or benefits must be made. The statistics in the first part of this table relate to the 16 Canadian societies reporting to the Insurance Department of the Federal Government, only one of which does not grant life insurance benefits.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain Dominion authority precedent to transacting business in Canada. However, any such societies which at that date were transacting business under provincial licences, while forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies have since obtained Dominion authority to transact business, also some foreign societies that had not previously been licensed by the provinces. Of both classes of societies, 30 transacted business in Canada during 1945, 2 of which do not grant life insurance benefits.

20.—Life Insurance in Canada of Fraternal Benefit Societies Reporting to the Dominion Insurance Department, 1941-45

Item	1941	1942	1943	1944	1945
CANADIAN SOCIETIES	No.	No.	No.	No.	No.
Net certificates effected	13,591	17,281	16,822	15,724	17,781
Net certificates become claims	3,159	3,070	3,301	3,363	3,347
	$	$	$	$	$
Net premium income	1,860,398	1,798,294	2,007,554	2,328,080	2,428,641
Net amounts of certificates effected	11,319,100	15,308,315	15,231,629	15,282,835	17,772,650
Net amounts in force	111,019,989	118,233,025	130,088,697	136,047,105	151,255,637
Net amounts of certificates become claims	2,619,639	2,627,440	2,732,071	2,695,737	2,845,697
Net benefits paid	3,107,645	3,072,460	3,150,963	3,237,437	3,096,212
Net outstanding claims	325,173	398,172	468,803	395,754	442,543
Net Amounts Terminated by—					
Death	1,904,019	1,983,938	2,041,619	1,968,409	2,182,901
Surrender, expiry, lapse, etc	9,991,444	8,067 569	8,984,637	9,521,647	9,865,312
Totals, Terminated	11,895,463	10,051,507	11,026,256	11,490,056	12,048,213
Assets [1]					
Real estate	9,485,650	7,893,944	6,787,719	5,572,863	4,523,584
Real estate held under agreements of sale	218,230	680,839	1,060,593	1,209,325	1,281,834
Loans on real estate	9,392,279	9,006,335	8,538,214	8,331,442	9,250,512
Policy loans	7,523,267	7,057,845	6,631,473	6,251,126	5,844,979
Bonds, debentures and stocks	54,992,545	58,223,335	63,986,281	67,609,473	70,852,761
Cash	1,661,843	1,404,083	1,620,793	1,931,621	1,940,682
Interest and rent due and accrued	680,457	717,131	739,764	769,824	783,156
Dues from members	265,348	297,084	369,591	366,214	329,423
Other assets	574,515	573,920	203,344	208,167	246,155
Totals, Assets [2]	**84,794,134**	**85,854,516**	**89,937,772**	**92,250,055**	**95,053,086**
Liabilities [1]					
Outstanding claims	424,007	493,042	590,294	511,531	565,453
Reserve under contracts in force	67,924,128	69,142,806	71,971,478	73,831,203	75,376,761
Other liabilities	5,966,210	6,723,380	7,523,778	7,965,582	9,012,574
Totals, Liabilities	**74,314,345**	**76,359,228**	**80,085,550**	**82,308,316**	**84,954,788**
Income [1]					
Premiums (for benefits)	3,764,090	3,637,646	3,885,241	4,223,461	4,372,857
Fees and dues (for expenses)	1,276,895	1,664,938	1,679,123	1,825,040	2,056,121
Interest and rents	3,664,131	3,792,399	3,880,708	3,799,614	4,047,952
Other receipts	233,002	287,360	246,740	770,656	822,914
Totals, Income	**8,938,118**	**9,382,343**	**9,691,812**	**10,618,771**	**11,299,844**
Expenditures [1]					
Paid to members	6,215,496	5,875,680	5,771,877	5,971,542	5,943,404
General expenses	1,482,904	1,618,881	1,634,841	1,772,304	2,108,049
Other expenditures	166,279	364,505	257,606	226,976	277,448
Totals, Expenditures	**7,864,679**	**7,859,066**	**7,664,324**	**7,970,822**	**8,328,901**
Excess of income over expenditure	1,073,439	1,523,277	2,027,488	2,647,949	2,970,943

For footnotes, see end of table

20.—Life Insurance in Canada of Fraternal Benefit Societies Reporting to the Dominion Insurance Department, 1941-45—concluded

Item	1941	1942	1943	1944	1945
FOREIGN SOCIETIES	No.	No.	No.	No.	No.
Net certificates effected	7,515	9,312	9,506	11,553	10,379
Net certificates become claims	951	979	1,078	1,124	1,103
	$	$	$	$	$
Net premium income	1,634,133	1,747,513	1,885,578	2,068,944	2,181,377
Net amounts of certificates effected	7,507,903	9,637,127	10,041,549	12,140,059	11,106,740
Net amounts in force	71,532,881	77,491,088	82,826,060	89,758,370	94,866,139
Net amounts of certificates become claims	1,030,080	1,019,188	1,178,288	1,197,928	1,170,293
Net benefits paid	1,313,324	1,336,208	1,463,704	1,521,494	1,589,596
Net outstanding claims	199,013	192,372	231,724	257,347	252,194
Net Amounts Terminated by—					
Death	951,612	920,570	1,048,005	1,093,645	1,059,949
Surrender, expiry, lapse, etc.	4,800,964	4,514,007	5,040,346	5,372,839	6,226,310
Totals, Terminated	5,752,576	5,434,577	6,088,351	6,466,484	7,286,259
Assets					
Real estate	3,559	977	977	977	977
Loans on real estate	145,333	138,794	126,728	111,532	101,977
Policy loans	1,503,105	1,519,992	1,477,320	1,415,190	1,304,229
Bonds, debentures and stocks	10,137,923	11,707,801	13,193,879	15,351,811	16,849,323
Cash	967,533	890,366	935,737	997,582	975,476
Interest and rent due and accrued	109,073	98,999	104,055	120,809	137,852
Dues from members	88,832	105,556	109,022	183,495	169,302
Other assets	2,093	22,217	24,635	22,315	32,432
Totals, Assets	**12,957,451**	**14,484,702**	**15,972,353**	**18,203,711**	**19,571,568**
Liabilities					
Outstanding claims	249,787	287,856	339,295	386,263	381,925
Reserve under contracts in force	13,257,975	14,314,815	15,091,136	16,025,979	17,059,839
Other liabilities	689,773	697,205	914,285	1,090,252	1,303,011
Totals, Liabilities	**14,197,535**	**15,299,876**	**16,344,716**	**17,502,494**	**18,744,775**
Income					
Premiums (for benefits)	1,906,093	2,057,154	2,331.339	2,664,104	2,884,367
Fees and dues (for expenses)	433,132	487,294	650,233	816,992	886,746
Interest and rents	637,960	382,952	494,246	447,876	580,592
Other receipts	84,328	214,079	190,080	151,119	202,930
Totals, Income	**3,061,513**	**3,141,479**	**3,665,898**	**4,080,091**	**4,554,635**
Expenditures					
Paid to members	1,530,915	1,573,264	1.811,382	2,029,658	2,154,868
General expenses	252,145	297,809	439,113	539,628	558,410
Other expenditures	31,556	45,622	49,003	60,161	61,299
Totals, Expenditures	**1,814,616**	**1,916,695**	**2,299,498**	**2,629,447**	**2,774,577**
Excess of income over expenditure	1,246,897	1,224,784	1,366,400	1,450,644	1,780,058

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[1] Whole business. [2] Book values. The totals carried into the balance sheets, including some market values of these assets were: $83,563,328 in 1941, $85,137,561 in 1942, $89,820,188 in 1943, $92,222,115 in 1944, and $95,044,252 in 1945.

Subsection 5.—Life Insurance in Force Out of Canada by Canadian Companies Registered by the Federal Government

Tables 21 and 22 give summary statistics of insurance in force as at Dec. 31, 1945, in currencies other than Canadian, classified by companies and by the currencies in which business was written. The data given here are in Canadian dollars, mainly at par rates of exchange for the countries concerned, but there are several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. More than 61 p.c. of all such business in force was written in United States currency and over 22 p.c. in sterling. From another standpoint, over 33 p.c. was written in currency of British countries outside Canada, and over 66 p.c. in currencies of foreign countries.

Canadian life companies operating under Dominion registration had in force in countries outside Canada, at Dec. 31, 1945, life insurance amounting to $3,845,863,540, and sinking fund and capital redemption insurance amounting to $5,514,718. As shown in Table **21**, insurance in force in currencies other than Canadian amounted to $3,720,046,453. The difference between these figures is presumably the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the British and foreign investments of Canadian life insurance companies as at Dec. 31, 1945, amounted to $1,309,683,152. Since the business in force in Canada of these companies at Dec. 31, 1945, amounted to $6,441,857,306, the total business on their books, Canadian and non-Canadian, amounted to $10,293,235,564. Thus, over 37 p.c. of the total business in force was out of Canada.

21.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other than Canadian, by Companies, 1945.

Note.—Figures are given in Canadian dollars, mainly at par rates of exchange.

Company	Insurance Effected			Insurance in Force		
	British Currencies	Foreign Currencies	Total	British Currencies	Foreign Currencies	Total
	$	$	$	$	$	$
Canada	7,840,484	13,615,847	21,456,331	143,610,120	204,960,750	348,570,870
Commercial	Nil	Nil	-	Nil	35,000	35,000
Confederation	8,682,507	13,592,428	22,274,935	104,751,513	96,932,252	201,683,765
Continental	Nil	Nil	-	36,506	163,378	199,884
Crown	6,934,118	12,459,054	19,393,172	47,310,219	75,306,230	122,616,449
Dominion	1,804,360	5,184,981	6,989,341	7,703,295	27,005,886	34,709,181
Dominion of Canada General	270,527	Nil	270,527	1,899,379	16,933	1,916,312
T. Eaton	Nil	"	-	15,000	4,821	19,821
Equitable	"	"	-	Nil	360,883	360,883
Great-West	"	24,339,792	24,339,792	366,501	200,441,464	200,807,965
Imperial	2,973,083	3,268,988	6,242,071	27,362,457	32,729,904	60,092,361
London	Nil	707,881	707,881	Nil	2,955,216	2,955,216
Manufacturers	23,039,688	33,952,045	56,991,733	184,315,589	219,928,631	404,244,220
Maritime	101,291	1,200	102,491	1,772,165	25,460	1,797,625
Monarch	Nil	Nil	-	Nil	187,511	187,511
Montreal	"	3,750	3,750	449,372	422,538	871,910
Mutual	18,000	556,379	574,379	1,116,839	12,298,471	13,415,310
National	704,467	Nil	704,467	4,327,526	455,159	4,782,685
North American	580,589	2,774,561	3,355,150	2,484,126	23,485,084	25,969,210
Northern	Nil	1,872,620	1,872,620	28,133	5,793,733	5,821,866
Sauvegarde	"	Nil	-	Nil	10,000	10,000
Sun	66,416,934	98,582,950	164,999,884	721,135,476	1,567,781,997	2,288,917,473
Western	Nil	Nil	-	Nil	60,936	60,936
Totals	**119,366,048**	**210,912,476**	**330,278,524**	**1,248,684,216**	**2,471,362,237**	**3,720,046,453**

21.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Companies, 1945—concluded.

Company	Liabilities		
	British	Foreign	Total
	$	$	$
Canada	86,899,518	78,891,156	165,790,674
Commercial	Nil	14,930	14,930
Confederation	58,050,517	30,534,078	88,584,595
Continental	11,177	83,567	94,744
Crown	15,160,341	15,920,891	31,081,232
Dominion	1,404,678	6,257,527	7,662,205
Dominion of Canada General	300,826	3,711	304,537
T. Eaton	8,601	2,049	10,650
Equitable	Nil	79,068	79,068
Great-West	372,653	51,344,191	51,716,844
Imperial	11,169,785	10,127,119	21,296,904
London	Nil	430,970	430,970
Manufacturers	82,706,669	83,809,617	166,516,286
Maritime	757,168	8,957	766,125
Monarch	Nil	271,242	271,242
Montreal	1,495	116,986	118,481
Mutual	436,697	3,410,114	3,846,811
National	676,413	154,523	830,936
North American	580,907	6,811,665	7,392,572
Northern	11,757	478,813	490,570
Sauvegarde	Nil	665	665
Sun	353,583,270	541,639,348	895,222,618
Western	Nil	12,798	12,798
Totals	**612,132,472**	**830,403,985**	**1,442,536,457**

22.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Currencies, 1945.

Note.—Figures are given in Canadian dollars, mainly at par rates of exchange.

Currency	Insurance Effected	Insurance in Force	Liabilities
	$	$	$
British—			
Pounds—			
Sterling	66,223,760	846,354,720	467,973,436
British West Indies	7,071,546	43,011,518	11,223,687
Palestine	508,210	2,811,034	397,539
South Africa	16,765,079	131,120,671	36,278,199
Southern Rhodesia	90,250	1,549,629	540,100
Dollars—			
British Guiana; British West Indies	6,792,793	45,441,530	13,949,320
Hong Kong	72,950	7,175,201	4,063,464
Straits Settlements	71,680	6,935,266	3,944,888
Rupees—			
British India	21,769,780	164,271,321	73,759,984
Shillings—			
East Africa	Nil	13,326	1,855
Totals, British	**119,366,048**	**1,248,684,216**	**612,132,472**

22.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (Excluding Fraternal Societies) Operating Under Dominion Registration, in Currencies Other Than Canadian, by Currencies, 1945—concluded.

Currency	Insurance Effected	Insurance in Force	Liabilities
	$	$	$
Foreign—			
Bolivares (Venezuela)	Nil	Nil	140,610
Cordobas (Nicaragua)	"	137,088	64,981
Dollars (China)	"	16,570	1,369
Dollars (Shanghai)	247,080	8,664,786	3,757,632
Dollars (United States)	191,559,161	2,298,022,451	778,683,974
Florins (Netherlands)	327,292	1,363,201	1,001,917
Francs (France)	Nil	216,326	158,018
Francs (Switzerland)	"	5,600	15,536
Guilders (Netherlands)[1]	761,339	18,691,984	5,335,303
Pesos (Argentina)	4,698,722	44,577,874	11,908,736
Pesos (Chile)	Nil	2,726,627	1,737,273
Pesos (Colombia)	938,955	3,209,559	521,885
Pesos (Cuba)	4,840,493	16,809,584	1,498,556
Pesos (Mexico)	2,187,655	14,245,276	2,447,466
Pesos (Philippines)	32,028	12,882,592	4,667,435
Pounds (Egypt)	5,297,501	28,252,452	7,070,394
Quetzales (Guatemala)	Nil	Nil	25,411
Soles Oro (Peru)	"	1,455,870	832,216
Ticals (Siam)	22,250	3,480,542	983,846
Yen (Japan)	Nil	16,540,023	9,512,345
Miscellaneous	"	63,832	39,082
Totals, Foreign	**210,912,476**	**2,471,362,237**	**830,403,985**
Grand Totals	**330,278,524**	**3,720,046,453**	**1,442,536,457**

[1] Includes Javanese and Netherlands West Indies.

Subsection 6.—Grand Total of All Life Insurance in Canada and the Business of Canadian Organizations Abroad

Table **23** summarizes the business outside of Canada of Canadian life companies and fraternal benefit societies. If to these figures is added the business in Canada of these organizations, as shown in Table **11**, the total business, internal and external, of all Canadian life insurance companies and fraternal societies may be obtained. Again, adding the business in Canada of British and foreign companies and fraternal societies, a grand total is obtained of all life insurance in Canada and of the life insurance business abroad of Canadian organizations; this total is shown in Table **24**.

23.—Business Abroad of Canadian Life Companies and Fraternal Societies, 1945

NOTE.—Figures for business in Canada will be found in Table **11**, p. 1083.

Item	New Policies Effected (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	$	$	$	$
Canadian Life Companies—				
Dominion	339,541,012	3,845,863,540	142,466,877	66,063,812
Provincial	[1]	[1]	[1]	[1]
Canadian Fraternal Societies—				
Dominion	5,984,000	88,812,153	1,452,115	2,288,120
Provincial	[1]	[1]	[1]	[1]
Totals	**345,525,012**	**3,934,675,693**	**143,918,992**	**68,351,932**

[1] None reported.

24.—Grand Total of All Life Insurance Business in Canada and of Canadian Organizations Abroad, 1945

Item	New Policies Effected (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	$	$	$	$
Canadian Life Companies—				
Dominion	1,022,022,032	10,286,478,923	308,734,085	126,400,418
Provincial	54,871,907	213,042,594	5,551,540	1,354,372
Canadian Fraternal Societies—				
Dominion	23,756,650	240,067,790	3,880,756	4,948,930
Provincial	20,061,436	133,031,870	2,707,997	2,006,881
British life companies	18,326,511	183,779,511	5,239,766	2,620,057
Foreign life companies	301,769,424	3,126,645,941	89,669,126	34,682,327
Foreign fraternal companies	11,106,740	94,866,139	2,181,377	1,213,126
Grand Totals	**1,451,914,700**	**14,277,912,768**	**417,964,647**	**173,226,111**

Section 3.—Casualty Insurance

Since 1875, the growth of casualty insurance business has been steady. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies licensed for the transaction of accident, guarantee, plate glass and steam-boiler insurance—the only four classes of casualty insurance then transacted—was 5, 3, 1 and 1, respectively. The report for the year 1945 shows that casualty insurance in Canada now includes various forms of accident and 23 other classes of insurance transacted by Dominion companies. In 1880, 10 companies transacted casualty insurance, but in 1945 such insurance was issued by 266 companies, of which 53 were Canadian, 71 British and 142 foreign; of these, 204 companies also transacted fire insurance. In addition, 21 fraternal orders or societies carried on accident and sickness insurance as well as life insurance business and 3 fraternal orders or societies carried on accident or sickness insurance only.

Table **25**, which shows the division of business in this field between Dominion and provincial licensees, indicates that, as in the cases of fire and life insurance, the bulk of the business (about 90 p.c. in this case) is transacted by companies with Dominion registration.

Since, as indicated above, most of the companies carrying on casualty insurance in Canada also transact fire insurance, their assets, liabilities, income and expenditures are included in the financial statistics of fire insurance companies given in Section 1, Subsection 3, of this Chapter. Table **27** gives similar figures for the total casualty business of Canadian companies, and for the casualty business in Canada of British and foreign companies, not transacting fire insurance, whose transactions are confined to insurance other than fire and life. In 1945, there were 10 Canadian, 4 British and 48 foreign companies whose operations were limited to the same field.

During the war years, automobile insurance showed a favourable experience with a loss ratio of around 45 p.c. This ratio was slightly lower than for the pre-war years, the result of lessened traffic, but since the end of hostilities the experience tends to be less favourable and now stands around 51 p.c.

Hail insurance in 1943 and 1944 had an unfavourable experience, however in 1945 the loss ratio fell to approximately 31 p.c.

Marine insurance showed a very large increase in Canada during the war years and substantial profits resulted. The results for the years 1941 to 1945, inclusive, were as follows:—

Year	*Premiums*	*Losses*	*Underwriting Profits*
	$	$	$
1941	6,011,922	2,781,190	1,694,470
1942	14,295,543	7,983,963	3,855,415
1943	10,061,059	4,931,286	3,449,873
1944	6,754,361	2,172,418	3,243,889
1945	5,978,274	2,995,704	1,704,367

This class of insurance will, no doubt, figure more largely in the business of companies in post-war years, than it did before 1939.

25.—Casualty Insurance in Canada, 1945

Class of Business	Dominion Registered Companies	Provincial Licensees			Lloyds	Grand Total
		Within Provinces by Which They Are Incorp.	In Provinces Other Than Those by Which They Are Incorp.	Total Provincial Licensees		
	NET PREMIUMS WRITTEN					
	$	$	$	$	$	$
Accident—						
Personal	4,202,407	4,403	208	4,611	330,348	4,537,366
Public liability	4,028,398	90,498	1,338	91,836	234,582	4,354,816
Employers' liability	1,685,801	249,660	Nil	249,660	116,641	2,052,102
Accident and sickness combined	12,649,497	132,346	91,168	223,514	2,469	12,875,480
Aircraft	691,777	Nil	Nil	–	36,723	728,500
Automobile	24,157,368	2,092,933	459,268	2,552,201	2,354,096	29,063,665
Boiler—(a) Boiler	805,935	13,668[1]	Nil	13,668	73,856	893,459
(b) Machinery	476,585	Nil	"	–	118,381	594,966
Credit	235,906	"	"	–	Nil	235,906
Earthquake	12,311	"	"	–	10,324	22,635
Explosion	123,617	362	22	384	38,401	162,402
Falling aircraft	122	Nil	Nil	–	9	131
Forgery	75,685	"	"	–	3,061	78,746
Guarantee (fidelity)	1,595,362	73,013	2,770	75,783	211,223	1,882,368
Guarantee (surety)	838,635				1,465	840,100
Hail	2,970,789	95,165	Nil	95,165	34,591	3,100,545
Inland transportation	1,993,890	7,570	8,163	15,733	15,055	2,024,678
Live stock	54,362	Nil	Nil	–	34,704	89,066
Personal property	6,623,921	13,288	8,246	21,534	36,186	6,681,641
Plate glass	665,173	75,649	215	75,864	234	741,271
Real property	259,770	2,411	Nil	2,411	43,434	305,615
Sickness	2,966,910	5,525	589	6,114	135	2,973,159
Sprinkler[2]	18,648	Nil	Nil	–	Nil	18,648
Theft	1,880,354	27,049	1,939	28,988	83,606	1,992,948
Weather	10,787	128,627	Nil	128,627	660	140,074
Windstorm	193,932	Nil	"	–	232	194,164
Totals	**69,217,942**	**3,012,167**	**573,926**	**3,586,093[3]**	**3,780,416**	**76,584,451[3]**
	NET LOSSES INCURRED					
	$	$	$	$	$	$
Accident—						
Personal	1,360,309	185	Nil	185	38,211	1,398,705
Public liability	1,502,481	27,410	2,087	29,497	38,241	1,570,219
Employers' liability	570,058	54,029	Nil	54,029	36,506	660,593
Accident and sickness combined	8,193,230	55,049	32,103	87,152	793	8,281,175
Aircraft	61,094	Nil	Nil	–	25,615	86,709
Automobile	12,412,766	932,587	220,984	1,153,571	11,403	14,977,740
Boiler—(a) Boiler	193,758	1,013[1]	Nil	1,013	670	195,441
(b) Machinery	131,463	Nil	"	–	11,815	143,278
Credit	3,784	"	"	–	Nil	3,784

For footnotes, see end of table.

25.—Casualty Insurance in Canada, 1945—concluded

Class of Business	Dominion Registered Companies	Provincial Licensees: Within Provinces by Which They Are Incorp.	Provincial Licensees: In Provinces Other Than Those by Which They Are Incorp.	Provincial Licensees: Total Provincial Licensees	Lloyds	Grand Total
	NET LOSSES INCURRED—concluded					
	$	$	$	$	$	$
Earthquake	9,792	Nil	Nil	-	Nil	9,792
Explosion	8,995	−81	"	−81	18,868	27,782
Falling aircraft	129	Nil	"	-	Nil	129
Forgery	23,150	"	"	-	1,290	24,440
Guarantee (fidelity)	85,371	5,256	"	5,256	103,009	193,636
Guarantee (surety)	84,249				−20	84,229
Hail	917,360	41,888	"	41,888	1,972	961,220
Inland transportation	781,200	3,645	7,107	10,752	10,576	802,528
Live stock	17,134	Nil	Nil	-	18,775	35,909
Personal property	3,918,471	4,483	3,200	7,683	18,343	3,944,497
Plate glass	476,055	46,422	Nil	46,422	24	522,501
Real property	265,347	Nil	"	-	−1,053	264,294
Sickness	1,287,348	5,927	567	6,494	Nil	1,293,842
Sprinkler[2]	9,121	Nil	Nil	-	"	9,121
Theft	761,371	12,877	328	13,205	72,720	847,296
Weather	4,913	26,718	Nil	26,718	Nil	31,631
Windstorm	78,255	Nil	"	-	12,883	91,138
Totals	**33,157,204**	**1,217,408**	**266,376**	**1,483,784**[4]	**1,820,641**	**36,461,629**[4]

[1] This business was transacted by an unregistered foreign company. [2] This business was transacted by a company not holding a certificate of registry to transact fire insurance and by some companies registered to transact fire insurance, but which showed figures for this class of business separately from their fire business. [3] Excludes $2,328,257, premiums of fraternal benefit societies for accident, sickness and funeral business. [4] Excludes $1,801,014 losses of fraternal benefit societies for accident, sickness and funeral business.

26.—Net Premiums Written and Net Losses Incurred in Canada (Registered or Licensed Re-insurance Deducted), by Companies Registered by the Dominion to Transact Casualty Insurance, by Class of Business, 1943-45.

Class of Business	1943		1944		1945	
	Net Premiums	Net Losses	Net Premiums	Net Losses	Net Premiums	Net Losses
	$	$	$	$	$	$
Accident—						
Personal	3,715,454	1,279,602	4,105,517	1,288,187	4,323,539	1,384,949
Public liability	3,580,494	985,048	3,638,404	927,407	4,095,737	1,521,797
Employers' liability	1,671,598	742,436	2,057,311	796,361	1,698,835	551,346
Accident and sickness combined	7,749,898	5,897,749	11,237,111	7,950,080	12,701,389	8,228,294
Aircraft	320,485	230,191	565,281	140,200	692,381	61,422
Automobile	19,130,310	8,746,033	20,824,040	10,186,670	24,330,567	12,477,310
Boiler—(a) Boiler	698,161	113,396	1,023,150	82,397	837,993	194,791
(b) Machinery	462,477	85,433	435,503	115,216	547,775	144,245
Credit	257,381	5,361	260,246	−911	235,906	3,784
Earthquake	3,290	2,250	21,363	647	12,375	9,792
Explosion	217,522	1,281	220,871	6,313	124,396	8,995
Falling aircraft	788	Nil	418	Nil	122	129
Forgery	51,174	7,806	62,254	−6,819	81,727	23,201
Guarantee (fidelity)	1,393,180	60,986	1,506,772	57,434	1,718,427	84,294
Guarantee (surety)	753,835	44,467	774,936	3,273	867,209	83,401
Hail	1,783,168	1,596,140	3,526,499	3,163,759	2,994,734	925,054
Inland transportation	1,639,013	567,453	1,713,422	717,707	2,037,045	806,543
Live stock	32,360	9,483	50,437	20,257	54,362	17,629
Personal property	4,580,740	3,022,426	5,655,278	3,506,856	6,762,521	4,018,377
Plate glass	623,553	346,008	643,284	317,535	666,393	475,770
Real property	336,228	97,145	373,055	10,136	269,911	265,346
Sickness	2,582,616	1,687,255	2,092,195	1,039,115	3,019,370	1,316,871
Sprinkler[1]	14,353	1,997	17,814	4,275	18,718	9,121
Theft	1,529,237	561,072	1,764,055	614,681	1,971,944	791,243
Weather	8,822	4,236	6,941	2,535	10,786	4,913
Windstorm	175,694	110,572	193,440	106,685	203,783	79,683
Totals	**53,311,831**	**26,205,826**	**62,769,597**	**31,049,996**	**70,277,945**	**33,488,300**

[1] Transacted by a company not holding a certificate of registry to transact fire insurance, and by some companies registered to transact fire insurance but which showed figures for this class separately from their fire insurance.

27.—Assets and Liabilities, Income and Expenditure of Canadian, British and Foreign Casualty Insurance Companies, 1945

Companies	Assets	Liabilities	Excess of Assets over Liabilities	Income	Expenditure	Excess of Income over Expenditure
	$	$	$	$	$	$
Canadian (In all countries)...	10,501,160	4,417,904[1]	6,083,256	5,172,109	4,507,562	664,547
British (In Canada).........	471,025	30,623	440,402	51,545	72,010	−20,465
Foreign (In Canada)........	28,316,801	15,203,424	13,113,377	22,327,956	19,714,851	2,613,105
Totals.............	**39,288,986**	**19,651,951**	**19,637,035**	**27,551,610**	**24,294,423**	**3,257,187**

[1] Not including capital stock.

Section 4.—Insurance as it Affects the Balance of International Payments

The short article "Insurance as it Affects the Balance of International Payments" which appears at pp. 870-871 of the 1942 Canada Year Book, has not been reprinted in this edition owing to the fact that only minor changes have taken place in this field since that date.

CHAPTER XXVIII.—POST-WAR RECONSTRUCTION*

CONSPECTUS

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The first phase in the framing of Canada's post-war economic policy began long before the cessation of hostilities and consisted of intensive study of reconstruction problems by a variety of public bodies. (The preliminary organization of this work is outlined at pp. 737-743 of the 1943-44 Year Book.) Committees of the Senate and House of Commons, the Advisory Committee on Demobilization and Re-establishment, the Advisory Committee on Economic Policy and the Advisory Committee on Reconstruction all shared in the preliminary task of studying Canada's post-war problems and making recommendations for economic policy. The reports of the last-named Committee and its sub-committees were tabled in the House on Jan. 28, 1944. (The main report is summarized on pp. 745-747 of the 1943-44 Year Book.)

Out of this preliminary study developed the Government's White Paper on "Employment and Income" (see pp. 843-847 of the 1945 Year Book). The White Paper sets forth the aim of the Government's reconstruction policy as follows:—

> "The central task of reconstruction, in the interests of the Armed Services and civilians alike, must be to accomplish a smooth, orderly transition from the economic conditions of war to those of peace and to maintain a high and stable level of employment and income."

Canada is a Federal State, therefore, responsibilities for attaining these objectives have to be shared by the Federal and Provincial Governments. That part of the broad policy on Reconstruction requiring co-operation between the Federal and Provincial Governments was translated into specific terms in the "Proposals of the Government of Canada", presented before a Dominion-Provincial Conference on Reconstruction in August, 1945. (The constitutional aspects of this Conference are dealt with at pp. 79-81 of the 1946 Year Book.) The Dominion proposals set out in some detail, the Government's legislative and administrative program aiming at the maintenance of a high level of employment and income during the post-war transitional period and the years to follow. Subjects covered by the proposals were decontrol, rehabilitation, housing, reconversion, agriculture and fisheries, labour, public investment and social security. (Details of these proposals will be found at pp. 80-81 and 832-833 of the 1946 Year Book.) The proposals concluded with a suggested basis for agreement between Federal and Provincial Governments on administrative responsibility and the distribution of tax-collecting powers necessary to implement such a program, initially for a three-year period.

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* Prepared by the Economic Research Branch, Department of Reconstruction and Supply.

The Conference in August, 1945, discussed the proposals and then adjourned to consider the matter more fully. Meanwhile, a co-ordinating committee, consisting of the Prime Minister and the nine Provincial Premiers, met *in camera* in November, 1945, and in January and April, 1946. Modifications were suggested by the provinces and revisions were offered by the Dominion, but on May 3, 1946, the Conference was adjourned *sine die* when it became evident that no immediate agreement acceptable both to the Dominion and to all the provinces was likely to be reached.

Accordingly, in the Budget Speech of June 27, 1946, the Federal Government proposed a modified form of agreement to be concluded with any province willing to restrict its use of certain specified tax fields over a five-year period in return for an annual subsidy. In the following year, further modifications were made as a result of which tax agreements were negotiated with a number of the provinces. (For details, see pp. 968-971.) Failure to secure general agreement with the provinces put into abeyance for the time being, implementation of the Dominion's proposed plan for a comprehensive social security scheme and a co-ordinated public investment program.

Meanwhile, the Dominion had created new administrative machinery to implement its reconstruction program. In June, 1944, the Department of Reconstruction was created, and in October, 1944, a Cabinet Committee on Reconstruction was set up. In January, 1946, the Departments of Munitions and Supply and of Reconstruction were merged to become the Department of Reconstruction and Supply.

Section 1.—The Dominion Program of Reconstruction

Since the end of hostilities in August, 1945, the Federal Government has been actively engaged in facilitating the transition of the Canadian economy from a wartime to a peacetime basis. Some of the more important aspects of this program of reconstruction are reviewed briefly, below.

Decontrol.—The process of decontrol, starting shortly after the conclusion of the War, was designed to meet gradually the changing needs of the economy and adjusted to ease some of the strong pressures of inflation noticeable in most fields. Broadly speaking, the policy with regard to prices has been to adjust ceilings where such action was necessary to increase production or make allowance for increase in cost, and to remove the ceiling entirely whenever goods were in reasonable supply. By the middle of 1947, price ceilings had been removed from most commodities, but staple products, generally, were still under control. Starting in 1946 and continuing into 1947, most subsidies paid on imported and domestic products had been dropped. A change in the price control over imported products was made in 1946 to allow the import of some foreign products needed but not available in Canada. Most allocation controls were also dropped. By mid-1947, the only important food items still subject to rationing were sugar and products with a high sugar content. The industrial use of rationed food products, together with vegetable oils and fats remained under control. Similarly, iron and steel, certain non-ferrous metals and lumber and paper products continued to be controlled and some of the wartime import and export controls were retained to assure sufficient supplies of goods in Canada. Foreign exchange control is being continued, chiefly in respect to capital transactions in modified form. Manpower and wage controls have been dropped. (See also Chapter XXIV on Prices.)

Demobilization and Rehabilitation.—Through the National Employment Service, large numbers of men and women in the Armed Forces and in war industries were placed in peacetime pursuits. Between June 1, 1945, and the end of 1946, approximately 675,000 service men were discharged and about 500,000 workers were released from employment on war contracts. In spite of the magnitude of this manpower shift, the high level of economic activity was maintained. The number of unemployed never reached more than about 270,000 out of a total working force of close to 4,800,000. Extensive provisions were made to assist ex-service personnel to rehabilitate themselves by means of financial assistance and training. (This program is outlined in detail in Chapter XXX on Veterans Affairs.)

Assistance to Private Investment.—The settlement of outstanding war contracts proceeded rapidly after V-J Day. Surplus war plants and equipment were made available for the reconversion and expansion of industry by the War Assets Corporation working under the Department of Reconstruction and Supply. Reduction in excess profits and income taxes stimulated the incentive of private industry to expand production. Special depreciation allowances for tax purposes were granted between November, 1944, and Mar. 31, 1947, for projects completed prior to Mar. 31, 1949. Over this period of approximately two and one-half years, approvals for special depreciation had reached a total in excess of $1,300,000,000. Low interest rates and special credit facilities for industrial expansion, not provided by the commercial banks, were made available through the establishment of the Government-sponsored Industrial Development Bank, a subsidiary of the Bank of Canada, in 1944 (see pp. 1017-1018). Allocation and price controls were retained over many types of producers goods and construction materials for a period after the War so as to ensure a more orderly distribution of supplies to industries. When it became evident in 1946 that the supply of basic and building materials was lagging behind the demand for them, various measures were taken to boost their production.

Sample surveys conducted by the Department of Reconstruction and Supply indicate that well over four-fifths of the reconversion of plant and equipment had been completed by the end of 1946 and that all but a small part would be completed by the middle of 1947. The modernization and expansion of plant and equipment was well under way by the end of 1946. Reporting firms stated that 20 p.c. of them had completed their programs at that time and that 70 p.c. expected to have completed their programs by the end of 1947. Two significant features brought out by the survey were: firstly, that a large proportion of the industrial firms interviewed were revising their plans upwards; and, secondly, that the emphasis of investment was on the acquisition of new plant and equipment rather than on the replacement of plant and equipment. Both the reconversion and the modernization and expansion programs were delayed throughout 1946 by shortages of material and labour.

Public Investment.—The Federal Government accepted the principle of timing public investment as part of its economic policy of high employment and income in April, 1945, and proceeded to implement such a policy (a) by establishing, through Orders in Council P.C. 7993 (Oct. 13, 1944) and P.C. 4942 (July 12, 1945), administrative machinery to handle its own public investment policy, and (b) by proposing to the Dominion-Provincial Conference on Reconstruction (Aug. 6, 1945) methods of co-operation to synchronize Dominion and provincial (and municipal) investment programs. Pending agreement with the provinces, the Federal Government proceeded with the development of screening and timing procedures for the management of its own capital expenditure program.

The present Federal procedure, as established by Order in Council P.C. 7993, 1944, provides that "proposals by departments and agencies of the Government to make capital expenditures on reconstruction projects and proposals involving financial assistance by the Minister of Reconstruction shall be submitted" to the Cabinet Committee on Reconstruction. Order in Council P.C. 4942 set up the necessary procedure whereby the Department of Reconstruction and Supply would assist the Cabinet Committee on Reconstruction and the Treasury Board in the policy of timing the Federal investment program in accordance with employment and income conditions. This policy, applied in the fiscal years 1946-47 and 1947-48, has meant the deferment of all unessential Federal construction. Supplementing this policy of curtailing public investment in the transition period, when investment by private business was at very high levels—expected to exceed in 1947, any previous accomplishments—was the attempt to build up a 'shelf' of fully-planned projects which could be implemented if and when employment conditions warranted. Lest this over-all policy of strict curtailment of construction be so rigid as to affect the efficiency of administration and desired expansion where essential, provision was made for certain emergencies through Vote 606, including a sum of $10,000,000 in the Estimates of the Department of Reconstruction and Supply. This provision has three purposes: (1) to provide moneys for the initiation of public construction projects in any area where acute unemployment developed during the reconversion period; (2) to finance certain essential public projects of a development nature if circumstances prevented their financing in the normal way; and (3) to provide additional funds for the planning of public construction projects through the employment of additional staff for the carrying out of necessary research surveys and investigations, and the advance acquisition of sites permitted in special circumstances by Cabinet approval.

Export Trade.—The Federal Government actively supports international efforts to encourage world trade. It participated in the creation of the International Monetary Fund and the International Bank for Reconstruction and Development. Dominion representatives have attended a number of international conferences called to explore methods of removing barriers to a high level of world trade. The most important of these conferences to date has been the International Trade Organization meeting at Geneva, Switzerland, in the spring of 1947. The Government is pursuing a vigorous policy of developing Canada's export trade, and to this end the Department of Trade and Commerce has been greatly expanded. Extensive foreign credits were made available to impoverished countries in 1946, under the Export Credits Insurance Act, 1944, and United Kingdom loan agreement. As a result, Canada's export trade in 1946 reached its highest peacetime level and, if no unfavourable developments occur in the latter part of 1947, the year's exports should exceed in volume those of 1946. Canadian exporters can insure against credit losses on exports or agreements to export general commodities or capital goods through the Export Credits Insurance Corporation, which was set up under the Export Credits Insurance Act, 1944, and reports to the Minister of Trade and Commerce (8 Geo. VI, c. 39). In order to ensure a reasonable supply of certain types of goods in Canada it has been necessary to retain export controls over a variety of products that Canada normally exports. (See also Chapter XXIII on Foreign Trade.)

Agriculture.—The granting of foreign credits has enabled large shipments of foodstuffs to be made to European nations, thereby sustaining agricultural employment and income. Negotiations are carried on with the United Kingdom, periodically, to renew and extend agreements covering the quantities and prices of various commodities to be sold to that country during the next year or two. To implement these agreements the Canadian Government has used its wartime agricultural boards. When the National Emergency Transitional Powers Act expired on May 15, 1947, the authority for their continued existence was provided for under the Agricultural Products Act, 1947. To ensure the fulfilment of commitments to the United Kingdom, a number of agricultural products are subject to export permit control. To this end, also, the Canadian Wheat Board Act was amended in 1947 to require all cereal grains grown in the Prairie Provinces and any other areas that might be designated to be delivered to the Wheat Board. Another amendment forbids anyone, except by permit, to buy and sell wheat in interprovincial or export trade until Aug. 1, 1950. To protect farmers against the fall of farm prices in the transition period, the Agricultural Prices Support Act was passed in 1944. The Act was invoked in 1946 to support the price of potatoes. The Prairie Farm Rehabilitation program has been giving particular attention to the establishment of large irrigation projects in the Prairie Provinces, so as to stabilize further the agricultural economy of that region. Canada has supported the basic principles of the International Food and Agriculture Organization; was an active participant in establishing this Organization at Quebec and has taken a leading part in the deliberations at conferences held at Copenhagen, Denmark, and Washington, U.S.A. (See also Chapter XII on Agriculture.)

Labour.—By the middle of 1946, most controls over the free movement of labour had ended, and in November, 1946, wage controls were dropped. The last control over labour, except under P.C. 1003, 1944, ended with the expiry of the National Emergency Transitional Powers Act on May 15, 1947. Collective bargaining and industrial disputes affecting the war effort under Federal jurisdiction in the later stages of the War and suspended the operation of the Industrial Disputes Investigation Act. In the summer of 1947, collective bargaining and labour relations within provincial jurisdiction were returned to the provinces. At the same time, the Federal Government introduced a Bill in Parliament to replace the Industrial Disputes Investigation Act and P.C. 1003, 1944. The Bill was laid over to 1948 for action. If passed then it will be known as the Industrial Relations and Disputes Investigation Act, and will cover about 250,000 workers under Federal jurisdiction, i.e., employed on railways, canals, telegraphic and telephonic communications extending beyond a province, inland and ocean navigation and shipping, air transportation, radio broadcasting and works outside of exclusive provincial jurisdiction or declared to be for the advantage of Canada or of two or more provinces. Provision is made also for any province to place any industry within its jurisdiction under the operation of the Act. The proposed legislation incorporates most of the provisions of P.C. 1003, 1944, but these have been materially revised in the light of wartime experience and the altered circumstances of peacetime conditions. One of the objectives behind the legislation is that it may serve as a model for similar legislation by Provincial Governments. Before the Bill was introduced in Parliament, several provinces had passed legislation incorporating many of the provisions of P.C. 1003, 1944.

The Federal and Provincial Governments have co-operated in providing industrial and other forms of vocational training for war veterans and young people and for the retraining of workers released from war employment. The National Employment Service has also undertaken to place executive and professional personnel. In 1946, the provisions of the Unemployment Insurance Act were extended to cover merchant seamen. Working conditions have continued to improve during the post-war period. The volume of unemployment has been relatively low, wages have continued to rise, and the hours of labour have been shortened from their wartime level. (See also Chapter XX on Labour.)

Consumers.—The high level of employment and income prevailing during the war years declined only moderately in the first post-war year and levelled out far above the pre-war level. As a comparable increase in prices had not occurred between the pre-war and post-war years, the general standard of living of the people was substantially higher than before the War. In general, the supply of consumer goods held its own or increased in the first year after the War in spite of supply bottlenecks and industrial unrest. As the year ended, the supply situation in regard to consumer goods started to improve noticeably. As a protection for consumers, articles in very short supply were kept under rationing following the War and price controls were also retained where it appeared desirable in situations of possible rapid and disturbing rise in prices. The price level has continued to rise since the end of the War and was accelerated to some extent in the early part of 1947 when large numbers of price ceilings and subsidies were dropped. Wartime restriction on instalment buying was relaxed in 1946.

Housing.—Throughout the post-war period, the Federal Government has sponsored a large-scale residential building program to meet the critical housing needs of Canadian citizens. Financial assistance is provided under the National Housing Act, 1944; the Veterans' Land Act, 1942; the Canadian Farm Loan Act, 1927; the Farm Improvement Loans Act, 1944; and the Emergency Shelter Provisions. The principal agency for the handling of this assistance is the Central Mortgage and Housing Corporation. This building program is dealt with in detail in Chapter XIX on Construction.

Because of the shortage of many types of building materials, the Federal Government has found it advisable to provide assistance and guidance in the production of these materials and in the use of new methods and materials for certain types of housing (see p. 303-304). Provision was made early in 1947 whereby rental projects acquired or brought under construction between Mar. 31, 1947, and Dec. 31, 1949, if approved by the Central Mortgage and Housing Corporation, would be permitted double depreciation for income tax purposes and the opportunity to amortize their loans from the Housing Corporation over a period of 30 years. (See also p. 584-587.)

In view of an anticipated shortage of qualified building-trades workmen, the Federal Government entered into a ten-year agreement with the provinces in 1944, whereby it provided a sum of approximately $1,000,000 to assist the provinces in expanding training facilities. At the end of 1945, 3,800 persons were receiving training in the building trades, at the end of 1946 the number had increased to 7,500, and at Mar. 31, 1947, it was 8,150. A large proportion of these trainees are veterans.

Social Security.—The full implementation of the Government's program of social security, involving such things as national health insurance and extension of old age pensions and unemployment insurance must be carried out in collaboration with the provinces. At present, it is being held in abeyance until the situation in respect to Dominion-Provincial tax agreements, which are now being concluded with several provinces, is further clarified. The payment of Family Allowances was inaugurated in July, 1945. About 1,600,000 families were receiving around $21,700,000 per month in allowances for 3,650,000 children in mid-1947. The average allowance per child was nearly $6 per month, which represented an average supplement to the income of families with children of a little over $13·50 per month. Unemployment insurance protection was extended to inland and ocean seamen in 1946. Provision was also made for a wider interpretation of "dependent" for unemployment insurance purposes and to permit supplementary earnings to be increased from $1 to $1·50 per day.

In June, 1947, legislation was introduced in Parliament under which the Federal Government would assume three-quarters of the cost of old age and blind pensions up to $30 per month, an increase in the basic pension rate of $5 per month. The aggregate permissible income from pensions and other sources was increased from $425 to $600 per annum. This latter provision allows many persons not previously qualified to apply for pension.

Section 2.—The Department of Reconstruction and Supply

The Department of Reconstruction and Supply, created by statute proclaimed on Dec. 24, 1945 (9-10 Geo. VI, c. 16), was the result of a merger of the Department of Munitions and Supply, established in April, 1940, and the Department of Reconstruction, provided for by legislation passed in June, 1944. Both Departments had been headed by the same Minister, and the amalgamation was designed to integrate the Government's effort to facilitate the transition from war to peace. The functions of this new Department were twofold: firstly, to liquidate the Government's commitments arising out of, and following the conclusion of, the War; and, secondly, to assist in the formulation of plans designed to maintain a high level of employment and income in Canada in the transition period and the years to follow. The functions of and the work done by the Department up to mid-1946 were reviewed in the 1946 Year Book, on pp. 835-842. The sections that follow review, therefore, the developments from mid-1946 to mid-1947.

Subsection 1.—Liquidation of the War Program

Controls and Priorities.—In the year under review the power, motor-vehicles, coal and rubber controls administered by the Department of Reconstruction and Supply were lifted. As of July 1, 1947, the Department continued to administer controls over iron and steel, lumber, pulpwood and wood fuel. These controls were retained for the time being to assist in the best possible allocation of resources still in short supply to both home and foreign markets. Certain functions of the Coal Controller of a non-control nature were taken over by the Dominion Fuel Board, reconstituted by P.C. 5236 of December, 1946, and to be absorbed by the Dominion Coal Board when established by Parliamentary enactment (see p. 1113). Control over radio-active substances, formerly administered by the Department, was turned over to the newly created Atomic Energy Control Board, by P.C. 1098 of April, 1947. The Board reports to Parliament through the Chairman of the Committee of the Privy Council on Industrial and Scientific Research—the Minister of Reconstruction and Supply (see pp. 302-303).

Shortages of certain materials that had existed during the War came even more to the foreground as the economy turned from wartime to peacetime pursuits. This was particularly true in the field of building materials urgently required to alleviate the present housing shortage and to meet the needs for physical reconversion, modernization and expansion of Canadian industry. To assist in this task, the Priorities Division of the Department of Reconstruction and Supply, together with other controllers, assisted in the allocation of basic materials, e.g., steel and lumber, required for the production of building materials, and, in turn, the flow of building materials was directed into domestic and foreign channels on the basis of urgent need. A system of building-material priorities for essential building had been established on a moderate scale in August, 1945, and extended during 1946 and 1947. At present, priority ratings are assigned for practically all building materials and cover all stages from the producer to the consumer. Building programs receiving priority assistance include: housing built by or for veterans, emergency shelter, Wartime Housing Limited, Integrated Housing developments built under the National Housing Act, 1944, prefabricated houses, military hospitals, military health and occupational centres. In the period Aug. 23, 1945, to Apr. 30, 1947, priorities were approved for 43,563 housing units, contributing notably to the speed-up of the housing program for veterans.

Efforts to increase the output of building materials took a number of forms, including, besides allocation of raw materials in short supply, methods and aids in channelling scarce materials to producers; price increases; price incentives on "loss-line" materials in short supply and incentive bonuses to makers of sanitary ware and soil pipe to encourage production over an established base. Where it was necessary to increase production facilities, assistance was extended to producers in obtaining equipment and accommodation. Double depreciation provisions and the services of the Industrial Development Bank were available to finance these expansions. As a result of all this activity, output of building materials was expected to be between 10 and 35 p.c. higher in 1947 than in 1946 for most items.

Renegotiation and Settlement of War Contracts.—Responsibility for the review and renegotiation of prices and other terms of war contracts rested with the office of the Financial Adviser. Settlement of completed or terminated contracts was conducted by the Contract Settlement Board which was established in the Department of Munitions and Supply several months before the cessation of hostilities (for details see p. 837 of the 1946 Year Book). In the second post-war year some of the more complex contracts, involving a great deal of detailed accounting work, were examined and by mid-1947 satisfactory settlements had been reached in most cases. Contract review proceedings have resulted in recoveries by the Government in excess of $460,000,000 at Mar. 31, 1947.

Centralized Purchasing.—To assure efficiency and speed in procuring urgently needed war supplies, two purchasing branches were established in the Department of Munitions and Supply, one for the procurement of general stores and the other for munitions. In January, 1945, they were amalgamated into one unit. In the first post-war year this Branch was concerned principally with the liquidation of war contracts and more recently has been transferred to the Canadian

Commercial Corporation, a Crown Company established by P.C. 1218 in March, 1946 (see p. 855). This Company, now reporting to Parliament through the Minister of Trade and Commerce, is acting as a Government purchasing agency for both export and import purposes where centralized purchasing appeared to be in the national interest, as, for example, purchases of relief supplies for UNRRA, or purchases of goods in Canada for foreign governments using Canadian credits. With the transfer of the Purchasing Branch of the Department of Reconstruction and Supply to the Canadian Commercial Corporation, the Corporation statutory powers were enlarged to permit it to procure and manufacture munitions and supplies and to construct or carry out projects for the Department of National Defence.

Disposal of War Surpluses.—The Surplus Crown Assets Act, 1944 (8 Geo VI, c. 21), replacing Order in Council P.C. 9108, 1943, provided for the liquidation and disposal of the Government-created war industrial structure and surplus materials. Recommendations for policy respecting disposal of surplus assets were entrusted to the Crown Assets Allocation Committee, the membership of which included representatives of Government Departments, householders, labour and agriculture. Administration of the program of disposal was the responsibility of War Assets Corporation, a Crown Company reporting to the Minister of Reconstruction and Supply. (For description of the functions of the Corporation see pp. 840-842 of the 1946 Year Book.) By mid-1947, substantial progress had been made. A large part of surplus stores and commodities have been sold, bringing an amount of over $300,000,000 to the Dominion Treasury as of Mar. 31, 1947. An additional $40,000,000 had been realized from the sale of real estate, buildings and buildings complete with equipment. On the basis of floor space, 47 p.c. of Crown plant (15,000,000 sq. ft.) had been turned over to private industry, and the remainder (17,000,000 sq. ft.) was still in the hands of the Government. The disposition of Crown plant at mid-1947 was, on the basis of floor space, as follows: 32 p.c. had been wholly or partly sold (of which a little better than one-quarter was sold to wartime operators); 12 p.c. had been leased; 3 p.c. had been subdivided for multiple tenancy by small businesses; 27 p.c. is being retained by the Government; 11 p.c. is now being used by War Assets Corporation for storage, some part of which will probably be retained permanently by the Government; 4 p.c. is up for sale or other disposal; and 11 p.c. has been or is being dismantled. A small part of the Government-retained plant administered by Canadian Arsenals Limited has been sublet on a multiple-tenancy basis to private firms.

Crown Companies in Liquidation.—Of the 30 Crown companies operating under the Department of Munitions and Supply at the conclusion of the War, the following 15 companies had terminated their activities in the first post-war year: Aero Motors Ltd., Aero Timber Products Ltd., Atlas Plant Extension Ltd., Citadel Merchandising Co. Ltd., Cutting Tools and Gauges Ltd., Defence Communications Ltd., Machinery Service Ltd., Northwest Purchasing Ltd., Quebec Shipyards Ltd., Small Arms Ltd., Trafalgar Shipbuilding Co. Ltd., Veneer Log Supply Ltd., Victory Aircraft Ltd., Wartime Metals Corporation, and Wartime Oils Ltd. During the War, three companies had surrendered their charters and their functions were amalgamated with those of other Crown Companies. The second post-war year saw the wind-up of the activities of an additional eight Companies, including: Allied War Supplies Corporation, Federal Aircraft Ltd., Turbo Research Ltd., National Railway Munitions Ltd., Research Enterprises Ltd., Melbourne Merchandising Ltd., War Supplies Ltd., and Wartime Shipbuilding Ltd. All of the foregoing wartime Companies had been concerned with particular phases of the Government's industrial and economic war effort and their task was completed with the conclusion of the War. One exception is the Park Steamships Ltd., a Crown Company assisting War Assets Corporation as a disposal agent for cargo ships declared surplus. Of the Government's wartime fleet of upwards of 150 cargo vessels administered by the Company, most ships had, by mid-1947, been sold for peacetime ocean trade. It is expected that this Company will complete its assignment with the transfer of the ships remaining in public ownership to the Canadian Maritime Commission, whose establishment was proposed in June, 1947. There remained then only a few Crown Companies which appeared to have significant peacetime functions. These were reorganized and continue to operate (see Subsection 2).

Subsection 2.—Continuing Functions for Industrial and Economic Development

The Government's commitment for "a high and stable level of employment and income" has had administrative implications which, towards the end of the second post-war year, became more clearly defined. Three main functions evolved: (1) the need for an objective appraisal, both in quantitative and qualitative terms, of the economic problem involved in making the most effective use of Canada's resources, both human and natural; (2) the need for devising administrative units within the Government to cope effectively with economic problems not falling within the responsibility of existing Departments, either by developing such units within the Department of Reconstruction and Supply or assisting other Departments to establish new branches where such a procedure appeared desirable in the interest of efficiency of administration; and (3) the need for integrating the Government's effort to assist in the maintenance of a high level of employment and income, particularly as this effort concerned the physical and industrial aspects of the problems faced. A number of branches within the Department of Reconstruction and Supply and several Crown Companies reporting through the Minister of Reconstruction and Supply to Parliament, formed the institutional fabric charged with the task of effectively rounding out the Government's administrative machinery. At the same time, the organization was kept sufficiently flexible to allow for organizational and departmental changes that may become desirable as a result of developments in the post-transition period.

Departmental Branches

Economic Research Branch.—This Branch, which grew out of the research secretariat of the Advisory Committee on Reconstruction and the Advisory Committee on Economic Policy, was established in the Department of Reconstruction in November, 1944, and with the amalgamation of the Departments of Munitions and Supply and Reconstruction in December, 1945, expanded into an economic intelligence unit designed to appraise and keep under observation the state of the Canadian economy. The work involves economic forecasts of the level of employment and income, exports and imports, investment and consumer expenditures, the potential development of supply bottlenecks of materials and labour, the progress of reconversion, modernization and expansion of industry, management-labour relations, changes in the cost-price and supply-demand relations, productivity, inventory holdings and savings habits of the Canadian people. Information on these subjects, partly statistical and partly qualitative in nature, obtained from numerous sources within and outside the Federal Government, are then assembled into national forecasts of employment and income for the current year. This over-all appraisal of the future of economic affairs in Canada is supplemented by special reviews of the outlook for the development of major economic regions and of the more important industries. These reviews are designed to survey and appraise the best available factual information on economic developments in Canada and provide a basis on which economic policy of governments and business can be formulated in advance of actual happenings. Accordingly, a number of findings of the Branch have been made available to the public in the following reports: Capital, Repair and Maintenance Expenditures of Business Enterprises in Canada, Forecast, 1946; Forecast of 1947 Investment by Canadian Business;* Production of Basic and Building Materials in Canada, Outlook, 1947; Reconversion, Modernization and Expansion, Progress and Programs in Selected Canadian Manufacturing Industries, 1945-47; Location and Effects of Wartime Industrial Expansion in Canada, 1939-44; Manpower and Material Requirements for a Housing Program in Canada; Research and Scientific Activity, Canadian Federal Expenditures, 1938-46.

Public Projects Branch.—This Branch is responsible for administering the Federal Government's public investment policy (see p. 1101). In implementing the Federal Government's short-term policy of confining Federal construction activity to essential projects, the Public Projects Branch examined all construction projects proposed for inclusion in the Federal Estimates for the years 1946-47 and 1947-48 with regard to their urgency and requirements for scarce materials and labour. After consultation with the departments concerned, the Public Projects Branch reported to the Cabinet Committee on Reconstruction, on construction items submitted for inclusion in the Estimates and indicated which undertakings, in the opinion of the Branch, were likely to compete with the investment program of private firms and individuals (including housing, industrial and commercial construction), or would jeopardize the carrying out of some of the Federal construction projects carrying a high priority (including housing and hospital construction). To make the administration of the short-term public investment policy as flexible as possible, the Public Projects Branch also administered Vote 606 (see p. 1102). After examination, funds were approved for development and survey projects, including power development in the Northwest Territories, investigations and surveys for river development in the Prairie Provinces, and construction of wharf facilities and acquisition of sites in Nova Scotia and Ontario.

As part of the Federal Government's long-term public investment policy, the Public Projects Branch is concerned with the assembly of a 'shelf' of postponable but fully planned public projects. The sponsoring Departments submit full information on such projects, together with detailed plans and specifications concerning material, labour and other requirements. After review by the Public Projects Branch and approval by the Cabinet Committee on Reconstruction, the projects are placed on the official shelf.

Resources Development Branch.—This Branch was concerned with aiding the Public Projects Branch in its review of public projects affecting the development of natural resources. The Branch also assisted in the formulation of policies for the development of mining areas, particularly by the provision of expanded facilities for air transportation. Because of the close relationship of this task with the responsibilities of the Public Projects Branch, the functions of the Resources Development Branch were absorbed by the Public Projects Branch at the end of the fiscal year 1946-47.

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* See pp. 1059-1063.

One important activity of the Resources Development Branch remained unaffected by this merger. The Forest Insects Control Board, formerly reporting through the Co-ordinator of Resources Development, now reports directly to the head of the Department (see p. 399). This Board was, in the second post-war year, mainly concerned with the further integration and expansion of Dominion, provincial and industrial efforts to fight insect diseases by comprehensive investigations of the cause and effects of the diseases, methods of controlling them, involving both laboratory and field work, guidance in forestry management and inspection, and provision of incentives for the training of forestry students willing to specialize in the field of forest entomology.

Research and Development Branch.—The functions of this Branch developed along three lines: (1) a Technical Information Service designed to make available to industry the results of Government and other research (see p. 839 of the 1946 Year Book); (2) to encourage research work not undertaken by any existing Government Department or agency, mainly in the field of building research; and (3) to appraise the significance of research expenditures on the part of governments (Federal and Provincial), universities and industry.

To disseminate research information to industry, this Branch established regional offices in the major industrial areas of Canada to maintain direct contact with private firms. These offices act as a clearing house by bringing research results achieved by Government to industry and by informing the Government of industry's technical problems that could be investigated to advantage by the Government. Preparatory work done in the field of building research will be continued by the newly-formed building research division established by the National Research Council at the beginning of 1947. The results of the survey of Federal Government expenditures on research and scientific activity covering the period 1938-46, undertaken jointly with the Economic Research Branch, were published in February, 1947. Similar surveys covering work done by provinces and universities and a sample of industry are currently under way. Because of the close relationship of the work of the Research and Development Branch with that of the National Research Council, the latter expanded its activities to take over the functions of this Branch as of Apr. 1, 1947.

Labour Problems.—The Department has continued to participate in bringing labour problems, as they affect labour-management relations in industries of importance, to a smooth transition from war to peace also in employment problems of particular regions and localities. Employment conditions and the outlook for economic development were reviewed for such areas as experienced a significant amount of unemployment in the reconversion period. This work assisted in the formulation of an employment policy designed to meet the specific needs of these areas.

Air Development.—The Air Development Branch had been concerned with a special survey to determine the extent of economic inter-community travel between the important centres in Canada (see p. 938, 1946 Year Book). At the beginning of January, 1947, the functions of this Branch were transferred to the newly formed Bureau of Transport Economics reporting to the Board of Transport

Commissioners for Canada. This Branch is concerned with all aspects of the transportation problem in terms of development and collection of statistical data, economic analyses and advice on transportation problems (see p. 658).

The Special Depreciation Committee.—This Committee was concerned with the approval of applications for Special Depreciation designed to encourage the reconversion, modernization and expansion of Canadian industry (see p. 839 of the 1946 Year Book). Approvals by the Committee in the second post-war year as compared with the preceding period were substantially higher. From November, 1944, to mid-1946, the Committee approved Special Depreciation to the extent of some $400,000,000, while in the succeeding year an amount of more than $900,000,000 was approved, giving a total of more than $1,300,000,000 for the period under which these provisions were in operation. Special Depreciation was a measure designed to meet particular transition needs. Approvals were limited to applications received prior to March, 1947, for projects to be completed before Mar. 31, 1949. By Order in Council P.C. 2487, dated June 24, 1947, an exception was made with regard to ships acquired from War Assets Corporation or built in Canadian shipyards in the period from Apr. 1, 1947, to Dec. 31, 1949. A ship, or that part of a ship, built in this period, is eligible for Special Depreciation.

Crown Companies and Independent Agencies

Canadian Maritime Commission.—Canada's merchant marine and shipbuilding industry have grown from modest proportions to the point where the country has the world's fourth largest merchant fleet and a large shipbuilding and repair potential. For the purpose of consolidating public administration of and encouraging these activities, Parliamentary authority was granted in the summer of 1947 for the establishment of a Canadian Maritime Commission under the Minister of Transport (Bill 336). The Commission, composed of three members, is to recommend policies and measures for the operation, maintenance, manning and development of a merchant marine and a shipbuilding and ship repair industry, to perform duties for the Minister of Transport under the Canada Shipping Act, 1934, and to administer steamship subventions.

Polymer Corporation.—In 1943, when Canadian supplies of natural rubber were cut off by Japan, a $51,000,000-plant was erected at Sarnia, Ont., as a Crown Company—Polymer Corporation—to produce synthetic rubber. The plant now has a capacity of 48,000 tons of synthetic rubber per year. In addition, a wide variety of by-products are being produced, including hydro-carbon gases, ethylene, butane, isobutylene, butylene, propane, and styrene. These have provided a basis for the establishment of a number of supplementary industries in the Sarnia area.

The organization of the Polymer Corporation is that of a co-ordinating company charged with the financial and administrative control of a number of independent companies. These are: (1) Dow Chemical Co., manufacturing basic ingredients; (2) St. Claire Processing, an Imperial Oil subsidiary, charged with obtaining and preparing petroleum fractions needed to make synthetic rubber; it also makes butyl rubber; and (3) Canadian Synthetic Rubber Co., which produces buna rubber. The last-named Company is controlled jointly by Goodyear, Dominion Rubber, Goodrich and Firestone. All these companies act independently and the finished product is sold by Polymer.

The National Research Council has been instrumental in improving and developing synthetic rubber. At the same time, the Corporation has large research facilities of its own. Canadian universities also participate in research activity.

Price trends for synthetic rubber produced by Polymer illustrate the increased efficiency of production, but do not reflect the very substantial improvements in quality that have been made. For example, there have been seven price reductions for Buna S which stood at 39·96 cents per pound in 1943, and is now 16½ cents per pound at Sarnia, Ont. This compares with natural rubber which in mid-1947 stood at 17¼ cents per pound at New York, U.S.A.

Eldorado Mining and Refining (1944) Limited.—This Crown Company is engaged in the mining and refining of pitchblende in Canada. The mine is located at Great Bear Lake, N.W.T., and is one of the chief sources of uranium and radium salts in the world. The refinery is at Port Hope, Ont. Prior to the outbreak of war, the mining and refining of pitchblende in Canada was under private control. However, to insure the proper distribution and use of this strategic mineral for wartime and peacetime purposes, Eldorado Mining and Refining (1944) Limited was incorporated as a Company wholly owned by the Crown and took over all private operations in this field.

Canadian Arsenals Limited.—This Company, reporting to Parliament through the Minister of Reconstruction and Supply, represents the industrial branch of the Armed Forces. It was established as a result of recommendations made by a joint committee, membership of which included representatives of industry and Government, appointed during the latter years of the War to examine the problem of continuing defence production in Canada. The Company co-ordinates its operations with those of the various divisions of the Canadian Department of National Defence and maintains liaison with defence branches of other governments. Its specific duties are to develop and provide improved weapons, to keep industry informed on the latest developments with regard to military equipment and to advise the Armed Forces on the country's industrial armament capacity. The Company also retains certain plants under its direct control. The latter group of plants, all wholly owned by the Government, are engaged exclusively in the production of guns and small arms, ammunition, explosives and other military supplies. Most of the plants were constructed and equipped by the Canadian Government after September, 1939, and since the end of the War have supplied the Canadian Armed Forces with modern military equipment.

Central Mortgage and Housing Corporation.—The main functions of this Corporation, formed on Jan. 1, 1946, were to administer the National Housing Act, 1944, the Emergency Shelter Order and the Home Conversion Plan. The Corporation provided for housing and mortgage research, for double depreciation for rental housing and for the reclamation of building materials from the demolition of outlying surplus buildings. In the course of 1946, the Corporation became responsible for the co-ordination of all Federal housing policy. This was accomplished by co-ordinating the activities of the Corporation with Wartime Housing Limited (see p. 1113) and maintaining close working relations with the Department of Veterans Affairs in respect to housing operations under the Veterans' Land Act. The Corporation also maintained close liaison with the branch of the Department of Reconstruction and Supply responsible for priorities and the expediting of an increase in the supply of building materials. To insure efficiency, the Corporation has decentralized its field operations into regional and branch offices. (For a discussion of the extent of operations, see p. 582.)

Wartime Housing Limited.—Up to the conclusion of the War, Wartime Housing Limited had been responsible for the provision of temporary housing for war workers in those parts of Canada where rapid expansion of war industries created acute housing shortages. With the ending of the War, the Company turned to providing homes at low rentals to veterans and their families. In order to insure integration of the effort of this Company with that of the Central Mortgage and Housing Corporation, joint policy formulation and management was arranged as of Jan. 1, 1947. Wartime Housing Limited restricted its activities to the construction of new units. The directors and officers of Wartime Housing Limited have become officials of the Corporation which administers all completed Wartime Housing units. Thus, the amalgamation of the housing activities of the Federal Government into a single organization has been substantially accomplished. (For a discussion of the operations of Wartime Housing Limited, see p. 582.)

Dominion Coal Board.—As a result of the recommendations of the Royal Commission on Coal, the Federal Government has revised its coal policy and has framed legislation providing for the establishment of the Dominion Coal Board. It is proposed to have the new Board absorb the functions of the Dominion Fuel Board, as well as to keep the production and marketing of coal in Canada under continuous review. The Board will advise the Government on a flexible coal policy designed to meet the varying needs of the major economic regions of the country. Until the Dominion Coal Board is established by Act of Parliament, the Dominion Fuel Board as presently constituted, continues to operate under the Minister of Reconstruction and Supply (see p. 441).

Section 3.—Provincial Programs of Reconstruction

The provinces have planned, individually, reconstruction measures for the post-war period. Schemes have been formulated for stimulating post-war employment and utilizing natural resources. In addition, steps are being taken within the provincial field to supplement the Dominion program for the rehabilitation of veterans. All provinces are co-operating in the Canadian vocational training program. Outlines of the respective provincial programs followed in 1946 are given below.

Prince Edward Island.—A Department of Reconstruction was established in 1944 to promote and co-ordinate plans for provincial development and post-war employment. An agricultural survey of the Province, begun in that year, was completed in 1945.

A Provincial Advisory Reconstruction Committee was appointed to assist the Government in formulating policies for the economic betterment of the Province and to organize, in advance of the end of hostilities, work projects that would create employment and employment opportunities. Nine technical committees were appointed under the direction of the Advisory Committee with special studies being made on education, tourism and transportation, rural electrification, housing, finance and revenue, fishing, agriculture, public health and welfare, and forestry. The Committee's report was received by the Government in July, 1945.

The 1945 Legislature enacted measures relating to town planning, the supplying of electric power, and the purchase by the Province of surplus war assets from the Federal Government. Several amendments to that legislation were passed in 1946.

A Provincial Planning Board was set up in October, 1946. A survey of the area adjacent to the city of Charlottetown, comprising a ground-level survey, sanitary survey and an economic survey, was authorized. This work is expected to be completed early in March, 1947.

Town Planning Boards were established in the municipalities of Charlottetown, Summerside, and Kensington, P.E.I. A report on "Taxation in Prince Edward Island", by Dr. J. E. Lattimer was completed early in 1946.

Nova Scotia.—Reconstruction in Nova Scotia, in 1946, followed, generally, the policies previously determined. In agriculture, the Cold Storage Assistance Act resulted in the construction of one large plant for apples; several others are under organization. Intensive and extended investigations were made into the mineral resources of the Province. In forestry, policies to maximize returns on a sustained yield basis were extended, and the new Small Tree Conservation Act provides for management to maintain forest cover. A Division of Inland Fisheries was established and the Fishermen's Loan Board extended loans to modernize boats and equipment. Tourism was promoted by advertising in the United States and by loans to improve tourist facilities. The manufacturing industry was assisted by the preparation of a Directory and the granting of capital loans for modernization and expansion.

The Provincial Labour Department assisted in the vocational training of veterans, and has a Code of Labour Laws under preparation. The establishment of rural and high schools was provided for, and the development of a course in chemical engineering at the Nova Scotia Technical College was announced. In public health, free institutional treatment for tuberculosis was instituted, plans for an intensified field and case-finding program were extended and hospitals, generally, were under expansion. A study of the division of functions between municipal and provincial authorities was prepared and assistance in community planning was extended to local bodies. Shortages hampered the highway program, but substantial mileages were graded preliminary to paving. The Nova Scotia Power Commission continued to extend its rural power lines and the construction of a new generating station was approved. The Research Foundation is in an advanced state of organization and a program of research is under preparation.

New Brunswick.—In addition to the maintenance of contacts with the Department of Veterans Affairs, the Employment Service of Canada and all Federal Government agencies working on rehabilitation, the Provincial Department of Reconstruction has expanded into three divisions, all working primarily to assure opportunity and employment for returned personnel.

(1) *Industrial Division.*—This Division offers technical assistance to industry at every level and participates with industry in the construction of buildings, the procurement of equipment, technique of manufacture, searching for and catering to markets, etc.

(2) *Fisheries Division.*—This Division sponsors the modernization of fishing equipment, boats, engines, etc., and the improvement of quality in fresh and canned fish. It also encourages increased production and packing in selected areas where natural resources are abundant and labour is sufficiently available.

(3) *Handicrafts Division.*—A creditable establishment is now in operation at Fredericton, completely equipped and staffed to teach the creation and manufacture of a full range of handicrafts in wood, leather, metals, ceramics, etc.

Throughout the Province, opportunity is also provided for such training in schools, institutions, homes, etc.

The Fishermen's Loan Board of New Brunswick reports satisfactory progress in their program of financial assistance to fishermen in the purchase of boats, engines, etc.

The Resources Development Board, created early in 1944, co-operates with Provincial Government Departments in all matters relating to the development of resources. The Board has been instrumental in bringing into active focus the possibilities inherent in provincial undeveloped resources—water power, mineral, forest, tourism and also acts in a technical advisory capacity. The facilities of the Board are also available to industry and individuals. Development assistance has been provided to new industries as well as expanding fields for existing operations.

The Board maintains close liaison with the National Research Council and other Federal laboratories.

Quebec.—Various Departments of the Provincial Government have prepared plans relating to reconstruction in the post-war period. Many of these plans are based on a provincial inventory of natural resources.

Department of Lands and Forests.—This Department is undertaking considerable forest development and full advantage will be taken of modernized methods of forestry control and exploitation. The industry is encouraged to extend to the public the benefits of the newest methods for the scientific and economic use of wood.

Department of Trade and Commerce.—The policy of this Department is to foster trade in domestic as well as in foreign markets. The Department works in close co-operation with Canadian Trade Commissioners in foreign countries and maintains an office at New York city to assist Quebec producers in selling their merchandise. The British West Indies territory is also covered by a provincial representative once or twice a year.

To provide reliable information for new industries desiring to locate in the Province, a detailed survey of all cities and larger towns has been undertaken and will be ready for publication during 1947.

Department of Social Welfare and of Youth.—This Department, realizing that the Province of Quebec is now on the crest of a wave of industrial development, will undertake to increase the capacity of its technical, arts and crafts, and other specialized schools, in order to provide skilled labour and technicians for new and for existing industries, many of which are expanding considerably.

Juvenile delinquency will also receive the immediate attention of this Department, in an endeavour to find and apply the proper solutions to the various problems resulting therefrom.

Department of Roads.—A program of new road construction, at a cost of $30,000,000 to be spread over a four-year period, has been approved by the Legislature.

The Department of Labour.—In accordance with Help to Apprenticeship Act, this Department has co-operated in the organization of many apprenticeship centres, which are under the direction of local Commissions or Boards composed of representatives of employers and workers in the industries or occupations concerned. The following apprenticeship centres were in operation as at Apr. 1, 1947:

1. Apprenticeship Commission for Construction and Engineering Trades in Montreal, 2255 East, Laurier Avenue, Montreal, Que.
2. Apprenticeship Commission of the Shoe Industry, 1895 La Salle Ave., Montreal, Que.
3. Apprenticeship Commission for Printing Trades, New Birks Bldg., Room 562, Montreal, Que.
4. Apprenticeship Commission for Watchmaking, 1686 St. Hubert St., Montreal, Que.
5. Apprenticeship Commission for Barbers and Hairdressers in Montreal, 354 East, St. Catherine St., Montreal, Que.
6. Apprenticeship Commission for Building Trades in Sherbrooke, 29 Gordon St., Sherbrooke, Que.
7. Apprenticeship Commission for Building Trades in Chicoutimi, 187 Racine St., Chicoutimi, Que.
8. Apprenticeship Commission for Building Trades in Hull, 187 Main St., Hull, Que.
9. Apprenticeship Commission for Building Trades in Joliette, 728 St. Viateur St., Joliette, Que.
10. Apprenticeship Commission for Building Trades in Matane, Matane, Que.

Ontario.—Each provincial Department has its post-war plans. Many of these involve substantial items of construction. The Departments of Public Works and Highways have long-term programs at advanced stages of planning. Hospitals, reformatories and other public institutions are part of the public works program. The Department of Lands and Forests has a comprehensive scheme for forest protection and management and fire control. The tree nurseries of this Department are being greatly extended to fill the heavy demand for reforestation. The Department of Travel and Publicity was established in April, 1946, for the purpose of developing the tourist industry.

The Department of Planning and Development, established in March, 1944, is a key agency of post-war reconstruction. The work of this Department falls into three branches:—

(1) *Conservation.*—Surveys have been carried out in a number of watersheds in southern Ontario. They have now been completed in the valleys of the Upper Thames, Etobicoke, Humber and Ganaraska, and are well advanced in the South Nation. Under the Conservation Authorities Act, 1946, municipalities in an area may establish an authority with power to acquire land and carry out conservation schemes. Several of these have already been formed.

(2) *Town and Community Planning.*—The Planning Act, 1946, gives the Department certain powers in the guidance and promotion of community planning and the final approval of plans, including plans of subdivision. The Department assists by giving general consulting advice to municipalities with respect to problems of their growth and development.

(3) *Trade and Industry.*—Originally, this Branch was mainly complementary to the Trade and Industry activities of Ontario House, at London, England. Its functions have become much broadened as the result of widely increasing contacts throughout the Province, the United States and other countries. The Branch assists in the development and placing of new industries and provides a constant service of up-to-date information of value to industrial and trading firms.

Manitoba.—A number of agencies co-operate in formulating post-war plans for the Province:—

Sub-Committee of the Cabinet.—Under the chairmanship of the Premier, the Sub-Committee receives and considers reports on the various aspects of reconstruction, rehabilitation and industrial development.

Post-War Reconstruction Committee.—The Post-War Reconstruction activities of this Committee were concluded in October, 1946. However, a continuing Committee of Deputy Ministers was set up with the same membership, for the purpose of providing a body which could review and study matters of an interdepartmental nature.

Advisory Committee on Co-ordination of Post-War Planning.—This Committee, representing various economic groups from urban and rural Manitoba, was set up by Order in Council on Apr. 18, 1944, to consider submissions and undertake research. Its aim was the integration of the provincial reconstruction program. Interim reports were submitted to the Premier on Dec. 15, 1944, and Feb. 4, 1945, and the final report on Jan. 21, 1946.

Special Select Committee of the Legislature.—At the 1944 Session, and re-empowered at the 1945 Session, a Special Select Committee of all the Members of the Legislative Assembly was constituted for the purpose of reviewing, criticizing, and formulating proposals and plans and advising and assisting the Government in the formulation of its post-war program.

Joint University Studies.—In 1941, at the request of the Governor of Minnesota, U.S.A., and the Premier of Manitoba, the University of Minnesota and the University of Manitoba, together, investigated the effects of alternative peace settlements upon the economies of the Canadian Prairie Provinces and the central northwest region of the United States. Two reports have been published.

Manitoba Electrification Enquiry Commission.—Manitoba Power Commission has acted on the Report and has laid out a ten-year expansion program. During the summer of 1946 the first stages of this program were put into effect.

Reports published under the sponsorship of one or more of the above Committees include: Wood Lots and Shelter Belts; Soil Classification and Land Use; Utilization of Plant and Animal Products; Marketing of Fruits and Vegetables; Small Town and Community Planning; Community Centres; and Report of Advisory Committee.

Saskatchewan.—The Department of Reconstruction and Rehabilitation was officially organized on Nov. 2, 1944. This Department has two divisions—Reconstruction and Rehabilitation. The Division of Reconstruction has the function of initiating projects contemplated by the Government of Saskatchewan looking toward the permanent development of the Province and to the raising of the standard of living of the people.

This Department has initiated a program of spray painting for rural buildings. In addition, two bulletins have been published covering farm-home improvement: *A Guide to Farm Home Planning and Modernization* and *Modernizing Farm Homes.* These have had wide distribution.

Two Crown Corporations have been organized under the Department: the Saskatchewan Reconstruction Corporation, which deals with the acquisition and disposal of surplus war assets for the various departments of the Provincial Government, and the Saskatchewan Reconstruction Housing Corporation which is, at present, dealing with the problem of emergency housing. As a result of the activities of this particular corporation, 569 living units have been undertaken, most of which are completed and occupied. These units were used almost entirely for returned veterans.

A machine shop and repair depot has been organized as part of the Saskatchewan Reconstruction Corporation, which is used for the repair of Government vehicles as well as machine shop work in connection with the various activities of the Provincial Government.

Alberta.—The Alberta Post-War Reconstruction Committee, set up on Mar. 30, 1943, conducted investigations into the provincial economy and its post-war problems through sub-committees on agriculture, education, finance, industry, natural resources, public works and social welfare. Also assisting were the Research Council of Alberta and the Post-War Survey Management Committee.

Implementation of the Post-War Reconstruction Committee's recommendations is the responsibility of the new Department of Economic Affairs, or of other appropriate Departments of Government. The Department of Economic Affairs, established at the 1945 Session of the Legislature, was empowered to initiate and sponsor projects designed to aid in rehabilitation and reconstruction.

In a brief to the Dominion House of Commons Committee on Reconstruction and Re-establishment, the Premier of Alberta outlined a potential $250,000,000 program that feasibly could be undertaken to provide social services, roads, bridges, housing and irrigation projects.

Among recommendations of the Post-War Reconstruction Committee so far acted upon are those pertaining to normal-school training as a branch of university work leading to a degree; appointment of a Veterans Welfare and Advisory Commission; appointment of the Alberta Power Commission and the Industrial Development Board; enactment of new apprenticeship laws; and the establishment of a new Department of Public Welfare. Also established is the Veterans Land Settlement Scheme, which provides veterans with half-section farms on nominal crop-rental terms prior to the granting of clear title. Veterans qualifying are given cash grants by the Federal Government under the Veterans' Land Act.

At the 1946 Session of the Legislature, provision was made for the Department of Economic Affairs to establish branches concerned with housing and cultural welfare.

In 1943, the Post-War Reconstruction Fund Act appropriated $1,000,000 for future projects. In subsequent years, this amount was raised to $5,000,000, and in 1946 a start was made on a program of road and highway development, utilizing these moneys. The post-war program now under way is a broad one and includes industrial expansion, educational benefits, a province-wide health and hospitalization scheme, extension of cultural and recreational activities, housing assistance in towns, cities and on farms, and a general up-grading of life and living in the Province.

British Columbia.—The organizations set up by the Government of British Columbia in the field of reconstruction include: (1) The Bureau of Reconstruction under a Committee of the Executive Council; (2) The Interdepartmental Advisory Committee on Industrial Development; and (3) The British Columbia Industrial and Scientific Research Council.

Bureau of Reconstruction.—The purpose of this Bureau (formerly the Bureau of Post-War Rehabilitation and Construction) is to co-ordinate all Provincial services in post-war activities, and to collaborate with Dominion Departments, other provinces, municipalities and private enterprise, with the view to formulating plans to create and maintain productive employment and to develop the human and material resources of the Province.

Through the medium of Governmental Advisory Committees appointed in seven of the ten Regions into which the Province is divided, Industrial Committees have been established to study conditions and recommend the extension to or the placing of new industries throughout the Province.

A Regional Planning Division of the Bureau co-ordinates information from Government Departments and from the ten Regions of the Province with the object of developing the economy of each Region. Advice is given to small incorporated municipalities on their community problems, and zoning by-laws and master plans are submitted.

Interdepartmental Advisory Committee on Industrial Development.—This Committee functions as a clearing house for administrative problems in the field of industrial development in which the interests of the various Departments are concerned. It works with the Bureau of Reconstruction in an advisory capacity. A Sub-Committee on Reconversion of Industry has been appointed which has sponsored special surveys in various industries to study the problems of reconversion; sub-committees on industry inquiries have also been set up in several regional areas of the Province.

British Columbia Industrial and Scientific Research Council.—The Council acts as a clearing house to: (1) co-ordinate the work of research units and avoid duplication; (2) initiate and generate new research work; (3) relate research work to other problems of industrial rehabilitation in the post-war period; (4) apply the results of research to the creation of new industries and trade-expansion programs. Research problems studied by the Council are undertaken on the recommendation of one of five Technical Advisory Committees, namely: agriculture, forestry, fisheries, mining and metallurgy, and power and irrigation. An Industries Advisory Committee has been formed to ensure industrial application for the research projects of the Technical Advisory Committees, to provide assistance for existing secondary industries, and to aid in the establishment of new industries in the Province.

The Government of British Columbia has planned an expenditure of $28,250,000 in public works, not all of which will be spent in the fiscal year 1947-48. A sum of $15,000,000 will be appropriated from revenue surpluses to be laid out on a three-year plan for new highway construction. An expenditure of some $18,250,000 is planned for 1947 as follows: $6,000,000 for maintenance of roads, bridges and ferries; $2,250,000 for hard-surfacing roads; $5,000,000 (one-third of the three-year plan) for new highway construction; and $5,000,000 for new bridges.

These projects will be over and above the capital developments now in progress, notably, the Hope-Princeton and Pine Pass Highways, which will absorb some $10,000,000.

CHAPTER XXIX.—NATIONAL DEFENCE*

CONSPECTUS

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The 1946 edition of the Year Book at pp. 1077-1078, traces the growth and development of the Canadian Armed Forces from their origin to the end of the War of 1939-45. In the period since the three Services, Navy, Army and Air Force, were at their peak strength, there has been a rapid reduction in personnel. Repatriation and demobilization of Canadian Forces has been completed much more rapidly than was ever anticipated.

The reduction in the personnel of the Armed Forces is given in the following summary:—

Strength and Date	*Navy*	*Army*	*Air Force*	*Totals*
Strength at peak...........	92,880	481,500	215,200	789,580
Strength as of Dec. 31, 1946.	8,481	21,473	12,846	42,800

The Department of National Defence was recently consolidated under a single Minister, and the work of the Navy, Army and Air Force is to be co-ordinated at all possible levels. The object is to achieve the greatest possible economy and efficiency in the Services, so that Canada will have Armed Forces which will meet the defence needs of the country and maintain the high standards of the Forces set in the War.

The Department now has one Minister and one Deputy Minister instead of three; also two associate Deputy Ministers whose responsibilities are based on functional rather than Service requirements. Headquarters of the three Services are being moved to a single site at Ottawa.

The international situation, the proposals made at the recent session of the United Nations, and the rapid changes in types of weapons, are among the considerations which make it undesirable at this time to settle finally the composition or character of the future Armed Forces of Canada. The year 1947 is regarded as a period during which the defence forces will be established on a sound administrative basis, capable of being adapted or developed to meet all possible changing circumstances. The defence organization will be kept on a flexible basis to fit in with any plan of general security or general disarmament as called for by the United Nations and the defence needs of Canada.

The Reserve Forces are an important element in the new organization. Many ex-servicemen joined the Reserves and Auxiliaries and will make their training and experience available to the younger recruits.

Section 1.—The Royal Canadian Navy

The Royal Canadian Navy has undergone two sweeping changes of organization within the past seven years. The outbreak of the Second World War found the Navy equipped with six River Class Destroyers, averaging 1,500 tons, and five small minesweepers. Personnel consisted of 131 officers and 1,643 men of the permanent service (R.C.N.) and 219 officers and 1,803 men of the combined Royal Canadian Naval Reserve and Royal Canadian Naval Volunteer Reserve, and the Fishermen's Reserve.

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* Revised under the direction of W. Gordon Mills, Deputy Minister, Department of National Defence, Ottawa.

During the War, this force was expanded and became a very substantial naval force, with submarine-hunting corvettes, frigates, and escort minesweepers predominating in the 378 warships in commission by 1945.

There were few naval operational areas that were not, sooner or later, the scene of R.C.N. activity. Its greatest undertaking was, of course, the war-long Battle of the Atlantic, in which merchant ships carrying 181,643,180 tons of supplies from North America to the United Kingdom received Canadian escort protection. As the invasion of Europe approached, Canadian warships took over the entire close escort of North Atlantic convoys and provided many of the hunting groups. The actual invasion saw 109 R.C.N. ships and 10,000 officers and men engaged.

The 17 enemy submarines definitely destroyed by the R.C.N. and the 11 in whose destruction it shared, were hunted down in as widely separated waters as the Caribbean and the Mediterranean Seas. Canadian warships became familiar with the waters of North Russia and the Aleutian Islands, with the South Pacific and the China Sea. In addition to serving in their own vessels, 1,634 Canadian officers and 4,149 men were lent to the Royal Navy and outstanding contributions were made in Naval Aviation and in Light Coastal Forces.

The second radical change has come with the return of peace. While it has brought a great reduction of the wartime force, the new fleet is many times more powerful than any peacetime navy Canada has previously possessed. Designed as a balanced two-ocean organization it is for the first time in R.C.N. history, built around big ships and makes allowance for the increasing importance of air power.

The Main Fleet.—The largest unit of the new force is a "light fleet" aircraft-carrier of 18,000 tons. Two 8,000-ton cruisers, seven large Tribal class destroyers, and four lighter destroyers, make up the balance of the fleet. The now obsolete corvette has vanished from the picture; six frigates and nine Algerine type minesweepers are retained in reserve and for training purposes.

The following are the ships:—

- Light Fleet Aircraft Carrier—
    - H.M.C.S. *Magnificent*

- Six-Inch Cruisers—
    - H.M.C.S. *Ontario*
    - H.M.C.S. *Uganda*

- Tribal Class Destroyers—
    - H.M.C.S. *Micmac*
    - H.M.C.S. *Huron*
    - H.M.C.S. *Haida*
    - H.M.C.S. *Iroquois*

- Tribal Class Destroyers—concl.
    - H.M.C.S. *Cayuga*
    - H.M.C.S. *Nootka*
    - H.M.C.S. *Athabaskan*

- "V" Class Destroyers—
    - H.M.C.S. *Sioux*
    - H.M.C.S. *Algonquin*

- Crescent Class Destroyers—
    - H.M.C.S. *Crescent*
    - H.M.C.S. *Crusader*

The aircraft carrier is of the Colossus class, with a speed of 25 knots. It carries 30 'planes and a ship's company of more than 1,000. Air Personnel of the Royal Canadian Navy is rounded out with men lent from the Royal Navy in which a number of Canadian aviators received their original training and served throughout the Second World War.

The cruisers, 550 feet long, mount nine six-inch guns, and heavy anti-aircraft armament. They carry crews of nearly 800 and have a speed of more than 30 knots. H.M.C.S. *Uganda* was the one large Canadian ship of the present fleet to go into action during the Second World War. H.M.C.S. *Ontario* was completed just in time to reach Japanese waters as hostilities ended.

The Tribals, fleet destroyers, are of about 2,000 tons and are the most heavily-armed vessels of their type. Three of them, British-built, saw much action in the closing years of the War. They are H.M.C.S. *Iroquois*, H.M.C.S. *Huron*, and H.M.C.S. *Haida*. The remaining four are notable as being the products of Canadian shipbuilders, and the first turbine warships ever built in the Dominion.

H.M.C.S. *Crescent* and H.M.C.S. *Crusader* are somewhat smaller destroyers than the Tribals and are thoroughly modern. They are on loan from the Royal Navy.

H.M.C.S. *Algonquin* and H.M.C.S. *Sioux* are Canadian "V" class fleet destroyers. They displace 1,700 tons and, while comparatively new ships, both have battle records to their credit.

The frigates and Algerine minesweepers, war-developed as anti-submarine vessels, displace 1,445 and 1,000 tons, respectively.

Inclusion of bigger ships in the R.C.N. has provided sea-going training facilities for which it was necessary previously to send Canadians to the Royal Navy. Surplus wartime equipment has also made it possible to supply naval divisions with modern training gear on a generous scale.

To man these ships the personnel of the Royal Canadian Navy has been authorized at 10,000. However, a limitation of 7,500 has been set for 1947. During the interim period (until Sept. 30, 1947), this complement will contain not only permanent service R.C.N. men, who sign a five-year agreement, but will also draw on reservists who have extended their wartime enlistment until that date.

Officers of the Royal Canadian Navy come from three sources: (1) Graduates from H.M.C.S. Royal Roads, the R.C.N.-R.C.A.F. College at Esquimalt, B.C.; (2) direct entry of certain specialists from the universities; (3) promotions from the ranks.

Royal Canadian Navy (Reserve).—The several Reserve organizations have been incorporated in a single organization known as the Royal Canadian Navy (Reserve). Divisions of the R.C.N. (R) are established in 20 centres across Canada.

Training, operational and repair bases will be retained at Halifax, N.S., and Esquimalt, B.C., both of which were greatly enlarged and modernized during the war years. Stress will be laid on a Navy trained under sea-going conditions.

The ships of the reserve fleet are:—

Frigates—
  H.M.C.S. *St. Stephen*
  H.M.C.S. *Beaconhill*
  H.M.C.S. *New Waterford*
  H.M.C.S. *La Hulloise*
  H.M.C.S. *Antigonish*
  H.M.C.S. *Swansea*

Algerine Class Minesweepers—
  H.M.C.S. *Fort Frances*
  H.M.C.S. *Kapuskasing*
  H.M.C.S. *New Liskeard*
  H.M.C.S. *Oshawa*
  H.M.C.S. *Portage*
  H.M.C.S. *Rockcliffe*

Algerine Class Minesweepers—concl.
  H.M.C.S. *Sault Ste. Marie*
  H.M.C.S. *Wallaceburg*
  H.M.C.S. *Winnipeg*

Wooden Minesweepers—
  H.M.C.S. *Revelstoke*
  H.M.C.S. *Llewellyn*
  H.M.C.S. *Lloyd George*

Motor Launches—
  H.M.C.M.L. *121*
  H.M.C.M.L. *116*
  H.M.C.M.L. *124*
  H.M.C.M.L. *106*

There are two types of enlistment in the Royal Canadian Navy (Reserve). Officers may be either Active or Retired. The first mentioned do periodic training. Retired officers may volunteer for training if they wish but it is not compulsory. Both classes are liable to mobilization in a time of emergency, though the latter are restricted to appointments within the limits of their age and physical ability.

Men are divided into Active and Emergency groups and are governed by the same conditions as apply to officers. They sign on for five-year periods. Authorized R.C.N. (R) Active complement is 18,000. There is no complement for Retired officers and Emergency men.

Naval Divisions are commanded by R.C.N. (R) Active officers, under whom are R.C.N. staff officers and instructors. The Staff Officers are instructional specialists. Naval Divisions are not only the local training centres for Reservists but are recruiting offices for the R.C.N. The various Divisions and the Centres at which they are established are:

H.M.C.S. Scotian, Halifax, N.S.
H.M.C.S. Queen Charlotte, Charlottetown, P.E.I.
H.M.C.S. Carleton, Ottawa, Ont.
H.M.C.S. Cataraqui, Kingston, Ont.
H.M.C.S. Brunswicker, Saint John, N.B.
H.M.C.S. Montcalm, Quebec, Que.
H.M.C.S. Donnacona, Montreal, Que.
H.M.C.S. York, Toronto, Ont.
H.M.C.S. Star, Hamilton, Ont.
H.M.C.S. Hunter, Windsor, Ont.
H.M.C.S. Prevost, London, Ont.
H.M.C.S. Griffon, Port Arthur, Ont.
H.M.C.S. Chippawa, Winnipeg, Man.
H.M.C.S. Queen, Regina, Sask.
H.M.C.S. Unicorn, Saskatoon, Sask.
H.M.C.S. Tecumseh, Calgary, Alta.
H.M.C.S. Nonsuch, Edmonton, Alta.
H.M.C.S. Discovery, Vancouver, B.C.
H.M.C.S. Malahat, Victoria, B.C.
H.M.C.S. Chatham, Prince Rupert, B.C.

Administrative and operational Headquarters for the Royal Canadian Navy is at Naval Service Headquarters, Ottawa, Ont.

University Naval Training Divisions.—Divisions for naval training are now established in 19 universities across Canada providing a program of four years' duration, designed to produce officers for the Royal Canadian Navy and the Royal Canadian Navy (Reserve) Active and Retired lists. These universities are: British Columbia, Alberta, Saskatchewan, Manitoba, Assumption College, Western Ontario, Ontario Agricultural College, McMaster, Toronto, Queens, Ottawa, St. Patrick's College, McGill, Montreal, Laval, New Brunswick, Saint Francis Xavier, Dalhousie, and Nova Scotia Technical College.

Training consists of instruction during the year in the nearest Naval Division and on the campus, followed by specialist instruction in H.M.C. ships and coastal establishments during the vacation months.

The program envisages an annual enrolment of some 500 students with a maximum complement of 1,800. There are, approximately, 900 undergraduates training this year.

The Royal Canadian Sea Cadets.—The R.C.S.C. consists of 91 authorized Corps, sponsored by the Navy League of Canada, and trained and supervised by the Naval Service. The authorized strength is 10,000 cadets between the ages of 14 and 18 years.

Section 2.—The Canadian Army

Command.—The present system of Command of the Canadian Army in Canada provides for five military Commands with subordinate Areas as follows:—

Western Command—with Headquarters at Edmonton, Alta.
  British Columbia Area—with Headquarters at Vancouver.

Prairie Command—with Headquarters at Winnipeg, Man.
  Saskatchewan Area—with Headquarters at Regina.

Central Command—with Headquarters at Oakville, Ont.
  Western Ontario Area—with Headquarters at London.
  Eastern Ontario Area—with Headquarters at Kingston.

Quebec Command—with Headquarters at Montreal.
  Eastern Quebec Area—with Headquarters at Quebec.

Eastern Command—with Headquarters at Halifax, N.S.
  New Brunswick Area—with Headquarters at Fredericton.

The five Commands are charged with complete military responsibility, under Army Headquarters, for all matters affecting their Commands and the command and administration of all troops within their Command.

Organization.—There is but one Canadian Army which includes all the ground Forces of Canada. Service is on a voluntary basis.

The organization of the Army provides for six component parts as follows:—

The Active Force.—The Active Force is organized on the basis of an establishment of 25,000 all ranks, plus personnel employed on the Northwest Territories and Yukon Radio System and Northwest Highway System. The Active Force is available for General Service and comprises a Field Force, Coast and Anti-Aircraft Defence Units, Headquarters, Command and Area Staffs; training, intercommunication, administration, research and development staffs, units and establishments, officers and men permanently employed but not borne on any regimental establishment.

The conditions for enlistment in the Active Force provide for men who were on Active Service in the Army during the Second World War, if they meet the physical requirements, have an education of Grade VIII, or the equivalent, and are between 18 and 40 years of age. Young men are preferred. Men who were not on Active Service during the War may enlist if they meet the physical requirements, have an education of Grade X, or the equivalent, and are between 18 and 25 years of age. Men qualified in some particular trade may be accepted up to the age of 35 years.

The Reserve Force.—The Reserve Force provides the basis for the organization of a field force in the event of emergency with an establishment provision of, approximately, 180,000 all ranks employed on a part-time basis and subject to annual military training.

The Supplementary Reserve.—The Supplementary Reserve will contain units and lists of individuals required in the event of mobilization to complete the organization of the Army. Such personnel will not be subject to, yet not precluded from, annual military training.

The Canadian Officers Training Corps.—The C.O.T.C. is the fourth element of the Canadian Army and responsible for training officer candidates during peace and war, the personnel are subject to the same obligations in respect of military service as apply to other parts of the Army.

The Cadet Services of Canada.—The Cadet Service consists of commissioned officers of the Canadian Army, serving on a basis comparable to officers of the Reserve Force, who are provided for the purpose of administering and training the authorized Cadet Corps of the Royal Canadian Army Cadets across Canada.

The Reserve Militia. — The Reserve Militia provides for units for home security duties, which could not be performed by the Reserve Force.

Additional to but not an integral part of the Canadian Army as educational and training establishments are: (a) officially authorized Cadet Corps; (b) officially authorized rifle associations and clubs; (c) such training centres as may be authorized from time to time by the Minister; (d) Royal Military College.

Statistics of the Canadian Army.—The Canadian Army appointments, enlistments and enrolments by provinces from 1939-45 are given in Table 1. The number of discharges from the wartime Active Service Force from May 1, 1945 to Dec. 31, 1946, were 407,212 General Service, 54,467 under the National Resources Mobilization Act, 14,532 Canadian Women's Army Corps making a total of 476,211 of which 284,800 were discharged in 1946.

1.—Canadian Army Appointments, Enlistments and Enrolments, by Provinces, 1939-45

Province	General Service[1]	N.R.M.A.	C.W.A.C.	Total
	No.	No.	No.	No.
Prince Edward Island	5,968	373	220	6,561
Nova Scotia	42,461	2,641	1,295	46,397
New Brunswick	32,025	3,693	982	36,700
Quebec	94,642	44,015	2,171	140,828
Ontario	243,457	23,822	7,508	274,787
Manitoba	42,488	5,962	1,750	50,200
Saskatchewan	44,200	8,135	2,140	54,475
Alberta	44,640	6,180	1,896	52,716
British Columbia	52,641	5,745	2,539	60,925
Outside Canada	5,912	7	1,117	7,036
Totals	**608,434**	**100,573**	**21,618**	**730,625**

[1] Includes 57,483 transfers from N.R.M.A. to General Service.

Repatriation and Demobilization.—Canadian Army repatriation of troops and wives of servicemen from September, 1939, to December, 1946, numbered 323,520 from the United Kingdom, 333 from Australia and 923 from the Caribbean. Total dependents of Army troops brought to Canada from the United Kingdom and North Western Europe during this period were 32,902 women and 16,760 children.

Prisoners of War returned to Canada numbered 5,934, of these 4,516 were liberated from Europe, the remainder from the Far East.

The following data on war casualties have been extracted from the Canadian Army Medical Statistics compiled during the First and Second World Wars.

2.—Number of Casualties in the First World War, 1914-18 and the Second World War, 1939-45

(Compiled from the Canadian Army Medical Statistics)

Item	1914–18			1919–45[1]		
	Officers	Other Ranks	Total	Officers	Other Ranks	Total
	No.	No.	No.	No.	No.	No.
Fatal Battle Casualties—						
Killed in action	1,776	32,720	34,496	1,068	12,066	13,134
Died of wounds	819	16,363	17,182	297	3,382	3,679
Presumed dead from enemy action	-	-	-	50	589	639
Killed accidentally	-	-	-	7	25	32
Deaths while prisoner of war (enemy action)	-	-	-	26	162	188
Fatal Non-Battle Casualties—						
Killed or died	297	4,663	4,960	388	4,523	4,911
Presumed dead	-	-	-	3	15	18
Deaths while prisoner of war	-	-	-	11	298	309
Totals	**2,892**	**53,746**	**56,638**	**1,850**	**21,060**	**22,910**
Non-Fatal Casualties—						
Missing[2]	25	4,343	4,368	-	-	-
Repatriated (prisoner of war)	387	4,113	4,500	369	6,063	6,432
Wounded	5,528	127,022	132,550	3,350	41,977	45,327
Wounded accidentally	-	-	-	329	5,759	6,088
Totals	**5,940**	**135,478**	**141,418**	**4,048**	**53,799**	**57,847**
Grand Totals	**8,832**	**189,224**	**198,056**	**5,898**	**74,859**	**80,757**
Total Troops Sent Overseas	-	-	**418,052**	-	-	**411,052**[3]
Total Enlistments	-	-	**611,741**	-	-	**730,625**[4]

[1] As of March, 1946. [2] All accounted for May 31, 1923. [3] To May 21, 1946. [4] To August, 1945.

3.—Canadian Army Honours and Awards Granted and Approved, Sept. 10, 1939 to Mar. 31, 1947

Operational Awards—	
Victoria Cross (V.C.)	10
The Order of the Companions of Honour (C.H.)	1
Companion of the Order of the Bath (C.B.)	4
Commander of the Order of the British Empire (C.B.E)	43
Distinguished Service Order (D.S.O.)	352
Bar to Distinguished Service Order	17
Second Bar to Distinguished Service Order	2
Officer of the Order of the British Empire (O.B.E.)	250
Member of the Order of the British Empire (M.B.E.)	695
Member of the Royal Red Cross (R.R.C.)	12
Military Cross (M.C.)	671
Bar to Military Cross	13
Second Bar to Military Cross	1
Associate of the Royal Red Cross (A.R.R.C.)	51
Medal for Distinguished Conduct in the Field (D.C.M.)	161
Bar to Medal for Distinguished Conduct in the Field	1
Military Medal (M.M.)	1,234
Bar to Military Medal	10
Second Bar to Military Medal	1
British Empire Medal (B.E.M.)	223
Mentions in Despatches	6,527

3.—Canadian Army Honours and Awards Granted and Approved, Sept. 10, 1939 to Mar. 31, 1947—concluded

Half-Yearly Lists (Non-Operational)—	
The Order of the Companions of Honour (C.H.)	1
Companion of the Order of the Bath (C.B.)	29
Commander of the Order of the British Empire (C.B.E.)	98
Officer of the Order of the British Empire (O.B.E.)	273
Member of the Order of the British Empire (M.B.E.)	575
Member of the Royal Red Cross (R.R.C.)	44
Associate of the Royal Red Cross (A.R.R.C.)	83
British Empire Medal (B.E.M.)	396
Commendations	5
Non-Operational Awards (Other than Half-Yearly Lists)—	
George Cross (G.C.)	3
George Medal (G.M.)	12
Member of the Order of the British Empire (M.B.E.)	9
British Empire Medal (B.E.M.)	20
Commendations	23
Cited in Orders	82
Foreign Awards—	
French	352
Belgian	327
United States	228
Tunisian	1
Czechoslovakian	23
Polish	6
Netherlands	513
Luxembourg	19
Chinese	6

Section 3.—The Royal Canadian Air Force

At the outbreak of War in September, 1939, the Royal Canadian Air Force consisted of two components, Regular and Auxiliary, with a total strength of 4,606 officers and men. During the war years three new components, Special Reserve, Women's Division and Air Cadets, were organized, and the Force expanded fifty-fold to a peak strength of 215,200 officers and other ranks in January, 1944. Of these, more than 15,150 were members of the Women's Division. Forty-eight squadrons took part in operations overseas and, in addition, many thousands of R.C.A.F. personnel were attached to Royal Air Force units scattered all over the world. Another 40 squadrons were retained in Canada for home defence and anti-submarine operations. The R.C.A.F. also undertook the operation of the British Commonwealth Air Training Plan, whereby 131,553 trained aircrew were provided for the Air Forces of the United Kingdom, Canada, Australia and New Zealand (see Canada Year Book, 1946, pp. 1090-1099).

Since the conclusion of hostilities the Force has been rapidly demobilized. The last operational units overseas were disbanded in June, 1946, and the last members of the Women's Division were released at the end of that year. On Dec. 31, 1946, the total strength of the R.C.A.F. was 12,846 officers and other ranks, of whom 173 were still overseas. In addition, there were 5,981 civilian employees in Canada and 16 at Overseas Headquarters. Included in these figures are some personnel whose services are being retained only for the "interim period", to facilitate the transition from wartime to peacetime conditions. The interim period will terminate on Sept. 30, 1947, when the permanent establishment of the Force will come into effect.

The peacetime Royal Canadian Air Force will be organized in three components, Regular, Auxiliary and Reserve. The Regular Force will have an authorized strength of 16,100 officers and men, but it is not proposed, at present, to recruit this Force to its maximum authorized establishment.

The R.C.A.F. offers enlistment to skilled or unskilled men. Ex-members of the R.C.A.F. who were on Active Service may enlist in their former trade if they meet the physical requirements, and are within the age-group of 25 years, plus the number of years Active Service. Similarly the age limit is extended to veterans who require complete trade training and who possess the educational qualifications required of civilians with no previous service. Civilians who were not on Active Service may enlist if they meet the physical requirements, are unmarried, and are between 18 and 25 years of age. Skilled trades require men with a minimum educational standard of junior matriculation or equivalent. Semi-skilled trades require men with a minimum of Grade X education or equivalent. There are a few unskilled trades in which men are accepted with Grade VIII standing. Skilled civilian tradesmen who require no further training may be accepted up to the age of 30 years.

Operational units of the Regular Force will include a mobile tactical wing, comprising No. 416 Tactical Bomber Squadron, No. 417 Fighter Reconnaissance Squadron, No. 444 Air Observation Post Squadron and a Transport Flight; an interceptor wing of Nos. 410 and 415 Fighter Squadrons; No. 405 Bomber Reconnaissance Squadron; Nos. 426 and 435 Transport Squadrons; and Nos. 413 and 414 Photographic Survey Squadrons.

Fifteen squadrons are projected for the Auxiliary Force which will have an authorized establishment of 4,500 officers and men. Only ten of these squadrons will be activated during 1947. All the auxiliary squadrons will bear numbers and names made famous by R.C.A.F. units overseas during the War, and will be situated, in so far as possible, at those cities the names of which were used by the wartime squadrons. The units now in existence, or to be formed in 1947, are as follows:—

No. 400—*City of Toronto*	Fighter Squadron, at Toronto, Ont.
No. 401—*Ram*	Fighter Squadron, at Montreal, Que.
No. 402—*Winnipeg Bears*	Fighter Squadron, at Winnipeg, Man.
No. 406—*Lynx*	Tactical Bomber Squadron, at Saskatoon, Sask.
No. 411—*Roaring*	Fighter Squadron, at Toronto, Ont.
No. 418—*City of Edmonton*	Tactical Bomber Squadron, at Edmonton, Alta.
No. 420—*Snowy Owl*	Fighter Squadron, at London, Ont.
No. 424—*Tiger*	Fighter Squadron, at Hamilton, Ont.
No. 438—*Wildcat*	Fighter Squadron, at Montreal, Que.
No. 442—*Caribou*	Fighter Squadron, at Vancouver, B.C.

The Reserve, for which a strength of 10,000 has been approved, is to provide a pool of partially trained personnel who can be mobilized, if necessity should arise, and trained quickly to operational standards. Its members will be drawn initially from ex-personnel of the Force who served during the War.

The Royal Canadian Air Cadets, as they were redesignated in 1946, will continue, as in the past, to prepare young men for entry into the Regular or Auxiliary Forces or into civil aviation.

The Royal Canadian Air Force is administered from Air Force Headquarters at Ottawa, Ont.

There are two geographical Air Commands. Central Air Command, with its Headquarters at Trenton, Ont., has under it No. 10 Group Headquarters, Halifax, N.S. North West Air Command (Headquarters, Edmonton, Alta.) has two groups under it; No. 11 (Winnipeg, Man.) and No. 12 (Vancouver, B.C.). In addition to the Air Commands, Maintenance Command (Ottawa, Ont.) directs and co-ordinates supply, equipment, aeronautical and construction engineering and aeronautical inspection services throughout the Air Force, and No. 9 Transport Group

(Rockcliffe, Ont.) co-ordinates and directs Military Air Transport. Air Attaches are maintained at Washington, D.C., Prague, Czechoslovakia, and Paris, France. In addition, the R.C.A.F. will be represented by the Senior Canadian Air Force Liaison Officers in London, England and Washington, D.C.

The R.C.A.F. Staff College at Armour Heights, Ont., trains officers for command and staff positions. At the School of Aviation Medicine, Toronto, Ont., there are facilities for consultant and specialist officers, laboratories for nutritional research, a human centrifuge, a cold low-pressure chamber, a tropical room, a statistical section, and well-equipped laboratories for the study of all branches of aviation medicine.

4.—Royal Canadian Air Force Appointments and Enlistments, by Province or Country of Permanent Residence, Sept. 10, 1939 to Dec. 31, 1946

Permanent Residence	R.C.A.F.	R.C.A.F. (Women's Division)	Total
	No.	No.	No.
Prince Edward Island	1,615	112	1,727
Nova Scotia	8,198	853	9,051
New Brunswick	6,888	737	7,625
Quebec	26,078	1,334	27,412
Ontario	95,200	5,281	100,481
Manitoba	21,226	1,305	22,531
Saskatchewan	23,070	2,461	25,531
Alberta	20,590	1,856	22,446
British Columbia[1]	22,000	2,300	24,300
Other British Empire	932	662	1,594
United States	8,469	129	8,598
Other countries	182	4	186
Totals	**234,448**	**17,034**	**251,482**

[1] Includes Yukon and the Northwest Territories.

5.—Casualties of the Royal Canadian Air Force in the Second World War, 1939-45, by Rank and Cause

NOTE.—Casualties to personnel of the Women's Division, included in the figures in this Table, are indicated in brackets.

Casualties	Officers	Other Ranks	Total
	No.	No.	No.
Casualties Due to Flying Operations (Including enemy action—ground or sea)—			
Killed or died	1,742	1,408	3,150
Presumed dead	5,633 (1)	4,253 (3)	9,886 (4)
Killed or died while prisoners of war	24	25	49
Wounded or injured (not fatal)[1]	189	304 (3)	493 (3)
Prisoners of war[2]	1,450	1,025	2,475
Casualties Due to Training Accidents—			
Killed or died	943 (2)	1,753 (1)	2,696 (3)
Presumed dead	146	234	380
Injured (not fatal)	111	245 (1)	356 (1)
Casualties Due to Other Causes—			
Killed or died	154	752 (23)	906 (23)
Presumed dead	6	27	33
Wounded or injured (not fatal)	95 (1)	473 (16)	568 (17)
Ill (not fatal)	245 (3)	1,265 (83)	1,510 (86)

[1] Wounded, injured and ill, includes only those seriously or dangerously wounded, injured or ill and does not include those who have died of wounds, injuries or illness, nor wounded, injured or ill prisoners of war and internees. [2] Does not include personnel killed or died while prisoners of war.

6.—Royal Canadian Air Force Honours and Awards Granted and Approved, Sept. 10, 1939 to Feb. 28, 1947

Honours and Awards—	
Victoria Cross (V.C.)	2
George Cross (G.C.)	4
Companion of the Order of the Bath (C.B.)	23
Commander of the Order of the British Empire (C.B.E.)	42
Distinguished Service Order (D.S.O.)	72
Bar to Distinguished Service Order	6
Officer of the Order of the British Empire (O.B.E.)	110
Member of the Order of the British Empire (M.B.E.)	319
Royal Red Cross (R.R.C.)	1
Military Cross (M.C.)	5
Distinguished Flying Cross (D.F.C.)	4,017
Bar to Distinguished Flying Cross	214
Air Force Cross (A.F.C.)	431
Bar to Air Force Cross	1
Associate of the Royal Red Cross (A.R.R.C.)	20
Distinguished Conduct Medal (D.C.M.)	1
Conspicuous Gallantry Medal (Flying) (C.G.M.)	12
George Medal (G.M.)	19
Military Medal (M.M.)	1
Distinguished Flying Medal (D.F.M.)	509
Air Force Medal (A.F.M.)	43
British Empire Medal (B.E.M.)	385
Mentions in Despatches	2,197
Commendations	297
Foreign Awards—	
Belgium—	
Military Cross, First Class	1
Czechoslovakia—	
Medal of Merit, First Class	4
Medal of Merit, Second Class	3
Medal for Valour	1
Military Cross	2
War Cross (1939)	3
Order of the White Lion, Second Class	3
Order of the White Lion, Third Class	2
Order of the White Lion, Fourth Class	4
France—	
Croix de Guerre	55
Croix de Guerre with Palm	1
Croix de Guerre with Silver Star	5
Croix de Guerre with Gold Star	1
Legion of Honour	3
Netherlands—	
Officer of the Order of Orange-Nassau with Swords	2
Knight Officer of the Order of Orange-Nassau	1
Officer of the Order of Orange-Nassau	1
Bronze Lion	1
Flying Cross	11
Norway—	
King Haakon VII Commemoration Medal	3
Poland—	
Grand Officers Cross, Order of Polonia Restituta	2
Union of Soviet Socialist Republics—	
Medal for Valour	1
United States of America—	
Army Air Medal	25
Army Air Medal with Oak Leaf Clusters	19
Bronze Star	3
Distinguished Flying Cross	19
Legion of Merit (Degree of Commander)	13
Legion of Merit (Degree of Officer)	21
Legion of Merit (Legionnaire)	1
Medal of Freedom	1
Purple Heart Medal	1
Silver Star	2
Soldier's Medal	1

Section 4.—The Defence Research Board

The mobilization of the scientific and industrial resources of the nation which was required in the Second World War demonstrated the need for co-ordination under one head of research and development pertaining to national defence.

Recognizing this need initially in the appointment in 1946 of a Director General of Defence Research, the Government later approved the establishment of the Defence Research Board. The Board consists of 12 members, one of whom is appointed Director General of Defence Research, and designated as Chairman and chief executive officer of the Board. There are five other ex-officio members, the Chief of the Naval Staff, the Chief of the General Staff, the Chief of the Air Staff, the Deputy Minister of National Defence and the President of the National Research Council. The remaining six members are appointed by the Governor in Council, and will be persons with scientific and technical qualifications drawn from the universities and industry.

The primary function of the Board is the co-ordination of the research and development activities of the Navy, Army and Air Force and to provide a link between the Armed Services and the civilian scientific community in Canada. A secondary but important function is to collaborate with the National Research Council in the application for the peaceful economic and industrial benefit of Canada of the many technical achievements of wartime and future developments in defence science.

There has been developed, under the Defence Research Board, an advisory committee structure designed to co-ordinate for the Board the defence aspects of research activities in the various fields of pure and applied science where developments of vital interest to defence will occur. Serving as members of these committees are representatives of the Armed Services, other Government Departments and agencies, and scientists expert in the fields under reference.

The Board will, in addition, initiate and conduct research into problems of direct and immediate interest to the Armed Services or to the defence of Canada as a whole. This work will be undertaken at research establishments operated by the Board or by other agencies.

The organization of the Board includes a central co-ordinating scientific and administrative staff and the following research establishments which were initiated during the War: (1) Canadian Armament Research and Development Establishment, Valcartier, Que.; (2) The Experimental Station, Suffield, Alta.; (3) The Chemical Warfare Laboratories, and the Radio Propagation Laboratory, Ottawa, Ont.

It is not the intention that the operations of the Board should duplicate those of existing research organizations. Legislation enacted by Parliament in 1947, directed the Board to co-ordinate its work with that of the National Research Council and other organizations and corporations engaged in scientific research and development, and authorized the Board to establish scholarships in connection with and make grants-in-aid for research and investigations for national defence.

Section 5.—H.M.C.S. 'Royal Roads', R.C.N.-R.C.A.F. College

As a result of the re-organization of H.M.C.S. Royal Roads, announced by the Minister of National Defence on Apr. 2, 1947, the former Royal Canadian Naval College now provides training for Naval and Air Force officers. The College will be known as H.M.C.S. Royal Roads, R.C.N.-R.C.A.F. College, and will be administered by a Board of Governors under the chairmanship of the Minister of National Defence. It will continue to be commanded by a naval officer. Lectures will be given by R.C.N. and R.C.A.F. officers and by civilian professors and instructors.

The Naval Service Act of 1910, which authorized the establishment of the Royal Canadian Navy, provided for the creation of a college for training naval officers. Halifax, N.S., was selected as the most suitable site, and the old naval hospital in the dockyard was chosen as being an adequate building for the Royal Naval College of Canada. It was recognized, however, that as soon as possible a more suitable building would have to be constructed. This naval hospital building had accommodation for 45 cadets. The College was opened in January, 1911, the naval staff being lent by the Admiralty while the civilian instructors were obtained in Canada. In October, 1910, the King's permission was obtained to add the prefix "Royal" to the title of the College, a privilege which that institution received before the Royal Canadian Navy itself.

After the explosion in Halifax harbour on Dec. 6, 1917, the College building remained standing with its walls and roof intact, yet its condition was such that the staff and cadets had to be sent to Kingston, Ont., for the ensuing term. In September, 1918, the College was transferred to Esquimalt, B.C., where it remained until 1922. The move to Esquimalt had never been regarded as permanent but before a final location had been determined severe naval financial retrenchment removed the problem. The estimates for the entire Service in 1922 were $1,500,000. The College closed and for the next twenty years Canada's permanent naval officers received their training in the Royal Navy. The Admirals and other senior officers of to-day's R.C.N., however, had been trained before the R.N.C.C. was dissolved.

The present institution was established as the Royal Canadian Naval College at Royal Roads, B.C., in 1942. The change in name also represented a certain change in character. Although influenced by the fine traditions of the Royal Navy, it has a more distinctly Canadian character than was the case with the original College. It is located ten miles from Victoria, B.C., on the former Dunsmuir estate. Surrounded by 600 acres containing some of the finest gardens in that beautiful area, the castle-like residence forms the administration centre of an establishment made up of both converted and newly constructed buildings. The College takes its name from the anchorage immediately offshore in the Straits of Juan de Fuca, "Royal Roads" having long appeared on early charts and records. A natural lagoon, separated from the Straits by a mile-long spit, provides year-round facilities for boatwork.

While the primary function of the College is to train men capable of assuming leadership in Canadian Naval and Air Force affairs, such a career is not obligatory to candidates. Graduates who do not wish to accept regular commissions will return to civil life but are under obligation to accept commissions in the R.C.N. (Reserve), the R.C.A.F. (Auxiliary) or the R.C.A.F. (Reserve). In the event of war, all graduates are liable for service if they are considered suitable in all respects.

In peacetime, a naval graduate returning to civil life following the two-year course can, if he wishes to qualify for a Master's or Mate's (Foreign Going) certificate in the Merchant Navy, be credited with one year's service at sea. Should he wish to continue his studies at a university, admission to second year Applied Science and first or second year Arts may be gained. The extent of the university recognition of a graduate's standing depends on the quality of his passing-out certificate and the requirements of the institution concerned. A cadet must choose at the beginning of his second term whether he wishes to enter the Navy or Air Force, or civilian life on graduation.

Those proceeding into the Engineering Branch of the Naval Service complete their advanced studies at the Naval Engineering College at Devonport, England. Electrical Branch graduates continue their course at appropriate universities. The Executive Branch of the Navy, comprising approximately 80 p.c. of the officer material required, and the Supply and Secretariat Branch, complete their training at sea and in the various naval establishments. Training cruises and, on occasion, familiarization flights in aircraft are included in a cadet's training.

Selected graduates who are following Air Force studies will be appointed to permanent commissions in the R.C.A.F. (Regular) and will receive further training in aircrew or other specialist R.C.A.F. categories. An opportunity exists for an honour graduate to attend university to qualify for a degree in Engineering which will fit him for employment in the Aero Engineering and Signals Branches.

Candidates for entry into the College must be unmarried British subjects, normally resident in Canada, and must have attained the age of 16½ years but not the age of 19½ years on July 1st of the year of entry. Candidates from French classical colleges may be enrolled up to 20½ years. Minimum educational standard is Senior Matriculation and candidates must write two qualifying examination papers prior to entry. All applicants must be medically fit in accordance with R.C.N. and R.C.A.F. (Regular) standards. Several scholarships are available.

CHAPTER XXX.—VETERANS AFFAIRS*

CONSPECTUS

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Note.—During the Second World War the rehabilitation of members of the Armed Forces was, in many respects, definitely tied-in with schemes for bridging the expected transition period. The rehabilitation of ex-service personnel and their general interests have since become functions of the new Department of Veterans Affairs.

The basis of the administration of the Department of Veterans Affairs, established in October, 1944 was dealt with in the 1946 edition of the Year Book at pp. 1053-54, and this Chapter brings the Administration up to date.

Section 1.—The Department of Veterans Affairs

Since the inception of the Department of Veterans Affairs the load on the Department and the staff engaged to cope with it reached their peaks in 1946. Approximately one million men and women served in the Armed Forces of Canada and the demobilization of this large force was almost entirely completed during 1946. Assisted by the comprehensive rehabilitation program it has been estimated that 95 p.c. of these veterans have found peacetime occupations, or are completing training for their chosen careers.

The majority of the veterans of the Second World War are proving to be sober, conscientious citizens, intelligently working out their own rehabilitation and assuming increasingly responsible positions in all walks of life. The results obtained by veterans attending universities, ranking as they did, so considerably above the usual average of under-graduates, demonstrate that veterans themselves recognize the opportunities offered them by the legislation covered in this Chapter, and that they are striving to make the most of these opportunities, even under difficult conditions.

Approximately one-half of the entire staff of the Department has been engaged in providing adequate medical treatment and care for the thousands of eligible veterans requiring it. This medical service has been provided through approximately 45 institutions of the Department throughout Canada, other similar institutions under contract to the Department and through the general practitioners of Canada, the assistance of every one of the latter having been made available to the Department to provide adequately the necessary skill and services.

The remainder of the staff, which reached a peak of 20,117 at the end of December, 1946, dealt with the various other Branches such as: the Veterans' Land Act Administration; the Rehabilitation Branch; the Canadian Pension Commission; the War Veterans Allowance Board; General Administration; etc.

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* Material for this Chapter has been contributed by the various Branches of the Department of Veterans Affairs through E. B. Reid, Director of Public Relations of Veterans Affairs.

The Department has 17 District Offices and two sub-District Offices in Canada, and also maintains a District Office in London, England, for the United Kingdom. The Administration of the Veterans' Land Act has District Offices and Regional Offices, the latter being strategically located in order to be most readily accessible to the majority of veterans taking advantage of the opportunities offered by that piece of legislation.

The policy of sending travelling rehabilitation units into the more isolated parts of the country was adopted by some Districts. This practice proved very satisfactory and greatly assisted the rehabilitation of many veterans who, otherwise, would have been unable to take advantage of their rights and privileges or, if they did, would have incurred excessive expense to both themselves and the Department.

Although demobilization has been rapid (see p. 1052 of the 1946 Year Book), Canada's veterans have made the transition from Service to civilian life quickly, quietly and with a minimum of criticism from both themselves and the general public—ample proof that Canada planned, enacted, and carried out a most effective rehabilitation program, extensive in scope and generous in provision.

Section 2.—Discharge Gratuities and Re-establishment Credits

Gratuities granted under the War Service Grants Act (outlined at pp. 1054-1055 of the 1946 Year Book), to which almost every Canadian ex-service man and woman was entitled, were nearly all paid by the end of the 1946-47 fiscal year. By that date, virtually all active service personnel had been discharged or, having volunteered for the Interim or Permanent Forces, had ceased to earn gratuity by virtue of the Order in Council setting the cut-off date for such personnel at Mar. 31, 1946.

Table **1** shows the number of applications passed for payment and the amounts paid during each fiscal year. It should be noted, however, that gratuities were paid by monthly instalments and, therefore, the amounts shown in any one fiscal year do not apply completely to the applications approved during the same period.

1. Applications for Gratuities and Amounts Paid under the War Service Grants Act, Years Ended Mar. 31, 1945-47

Year and Service	Navy		Army		Air Force		Total	
	Applications Approved	Amount Paid	Applications Approved	Amount Paid	Applications Approved	Amount Paid	Applications Approved	Amount Paid
	No.	$	No.	$	No.	$	No.	$
1945[1]								
Armed Services...	6,384	973,957	96,526	14,663,621	21,140	3,468,852	124,050	19,106,430
Auxiliary Services.	Nil	-	Nil	-	Nil	-	Nil	-
1946								
Armed Services...	76,116	27,277,981	300,112	121,003,583	162,369	64,157,015	538,597	212,438,579
Auxiliary Services.	2	180	182	58,646	50	36,115	334	94,941
1947								
Armed Services...	21,745	17,766,165	187,028	170,585,767	47,547	32,926,652	256,320	221,278,584
Auxiliary Services.	6	730	356	327,176	56	121,253	418	449,159
Totals........	**104,253**	**46,019,013**	**584,204**	**306,638,793**	**231,162**	**100,709,887**	**919,719**	**453,367,693**

[1] January, February and March only.

Re-Establishment Credits.—With very few changes the legislation governing the use of re-establishment credit remains the same as outlined at pp. 1055-56 of the 1946 Year Book. Such changes as have occurred include recognition of the widow of a veteran, if he dies after discharge but before using his credit, as eligible for any remaining credit or, if there is no widow, the veteran's mother if she was wholly dependent upon the veteran immediately prior to his death.

Another change occurs in the Section permitting the use of re-establishment credit in the acquisition of a home under the National Housing Act, in that, credit may now be used to defray up to two-thirds of the difference between the total cost of the home and the amount of the loan, instead of the difference between the lending value and the loan as formerly. Re-establishment credit uses have been extended also to include the acquisition of a unit of living accommodation in a housing project receiving financial assistance under the National Housing Act.

There has been relatively little change from the previous year (see p. 1056 of the 1946 Year Book) in the percentages of credits used for the various purposes. The acquisition of homes has shown a general downward trend with the exception of the Section permitting reduction or discharge of indebtedness which has had a very limited effect on the picture as a whole. The purchase of furniture continues to be the popular purpose, increasing to the point where it accounts for over 54 p.c. of the credit used and approximately 70 p.c. of the applications received. In respect to the other purposes, the trends have been static, varying less than 1 p.c. from the previous year.

At the end of the fiscal year 1946-47 more than $120,000,000 of re-establishment credit had been authorized for veterans, nearly 80 p.c. of which had been spent on tangible assets connected with a home indicating that this has been a very real form of assistance to veterans faced with an extremely acute housing problem.

2.—Re-establishment Credits Paid, by Purpose for which required, Years Ended Mar. 31, 1945-47

Item	1945	1946	1947	1947
	$	$	$	P.C. of Totals
Homes—				
Purchased under National Housing Act	4,776	221,777	750,140	1·0
Purchased not under National Housing Act	320,659	6,306,043	11,739,328	15·4
Repairs, etc	85,750	1,763,591	5,181,285	6·8
Furniture and equipment	443,099	11,942,200	56,306,510	74·0
Reduction of mortgages	551	556,351	2,203,660	2·8
Totals, Homes	**854,835**	**20,789,962**	**76,180,923**	**79·0**
Business—				
Purchase of business	15,429	530,549	1,784,659	9·1
Working capital	87,541	3,458,688	10,116,248	51·8
Tools and equipment	151,705	2,158,850	7,635,696	39·1
Totals, Business	**254,675**	**6,148,087**	**19,536,603**	**19·0**
Miscellaneous—				
Insurance annuities, pensions, etc	10,899	138,218	708,955	80·6
Vocational and educational fees and equipment	1,514	69,475	116,325	13·2
Allied veterans	Nil	1,170	54,770	6·2
Totals, Miscellaneous	**12,413**	**208,863**	**880,050**	**2·0**
Grand Totals	**1,121,923**	**27,146,912**	**96,597,576**	**100·0**

When the use of re-establishment credit outside Canada (see p. 1055 of the 1946 Year Book) for the purchase of veterans insurance was authorized, steps were taken to advise, so far as possible, all ex-service personnel residing outside Canada of the new regulation.

By Mar. 31, 1947, re-establishment credit amounting to $637,098 had been applied to the purchase of 1,291 veterans insurance policies, with 234 applications pending. The total value of the policies in force was $4,837,500. (See Section 6, p. 1154.)

Approximately 80 p.c. of the policies sold outside Canada have been to veterans residing in the United States, 8 p.c. to residents of the United Kindgom, 6 p.c. to Newfoundland and the remaining 6 p.c. to other countries. Ex-service women and widows of veterans accounted for 64 of the policies sold to which they have applied $17,403 re-establishment credit.

Veterans may purchase veterans insurance at any time within three years after discharge or the date of the coming into force of the Act which was February, 1945.

Section 3.—Post-Discharge Treatment

Subsection 1.—General Policy

The general policy with regard to post-discharge treatment is based on two fundamental principles designed to provide the best possible professional medical and surgical care for veteran patients. The first principle is close co-operation with the universities, so that Veterans' Hospitals may be used as teaching hospitals for either undergraduate or post-graduate teaching. The second principle is that consultant staffs at the Departmental hospitals should, so far as possible, be employed on either a part-time or a temporary basis, thus permitting these specialists to be also engaged in their work as teachers in the universities or as consultants in the districts. These outside contacts on the part of the staff assure the veteran patients the latest and soundest methods of diagnosis and treatment.

In districts where no Departmental hospital exists veterans with service-related disabilities and other veterans, in case of need, may receive medical service through doctors of their own choice.

Subsection 2.—Treatment Facilities

As was anticipated, the veteran patient load showed a gradual and steady increase throughout 1946. With the peak load over by late spring, an adjustment of accommodation was required to provide for the long-term needs of the Treatment Services, these were met by the closing up of a large proportion of the Service hospitals taken over to meet the peak, and the abandonment of obsolescent facilities that formed part of the Department's regular hospital accommodation.

Of the 17 Service hospitals, representing over 5,000 beds, taken over by the Department, the following, with a total of approximately 3,500 beds were slated for abandonment during 1947: Sydney (Naval), Lachine (R.C.A.F.), Ottawa (Army), Malton Convalescent (Army), Crumlin Convalescent (Army), Portage la Prairie Conditioning Centre (Army), Brandon (Army), Gordon Head Conditioning Centre (Army), Sussex (Army), Hamilton (Army). The closing date in each instance will be adjusted to meet the actual patient load.

Coincident with the closing of these Service hospitals, new construction will come into use. The permanent building program, which is given in detail at pp. 1057-1058 of the 1946 Year Book, has been seriously handicapped by the prevailing shortage of material and labour. Since that list was published, additional replacements have been recommended as follows: at Calgary, 100 beds, plus facilities; at Winnipeg, 200 replacement beds, plus facilities; at London, 200 replacement beds, plus facilities; and at Quebec, 200 beds in a new hospital. These will all be of modern, fire-proof construction and will include accommodation for internes, in order to meet the change in Departmental policy of employing internes largely to replace the full-time medical officers in the Treatment Services. Much of the replacement program will not concern beds, but rather ancillary services essential for adequate investigation, diagnosis and treatment. Service to bed patients represents a relatively small proportion of the treatment service to veterans of both wars, evidenced by the fact that in the year ended Mar. 31, 1946, total admissions to hospital numbered 92,015, while clinical treatments numbered 738,558.

Subsection 3.—Prostheses and Surgical Appliances

The Prosthetic Services Branch of the Department of Veterans Affairs, established in August, 1916, has as its first responsibility the provision of prostheses and orthopædic appliances to veterans and other persons entitled to such supply under Order in Council P.C. 4465 as amended. In the latter case, the Departments concerned include National Defence and Mines and Resources, together with the Canadian National Railways and Provincial Workmen's Compensation Boards.

The organization consists of a main manufacturing and fitting centre at Toronto and eleven district centres established in the major Canadian cities, equipped with facilities for measuring, fitting, adjusting and maintaining artificial limbs, orthopædic boots, splints, braces, artificial eyes and other appliances. Minor orthopædic appliances such as trusses, glasses, hearing aids, elastic hosiery, etc., are supplied through purchase from private manufacturers.

Issues in the fiscal years since 1940 were as follows:—

Year Ended Mar. 31—	*Total Production Jobs*	*Purchased and Stock Articles Issued*	*Total Issues*
	No.	No.	No.
1941	15,167	15,944	31,111
1942	16,625	16,460	33,085
1943	19,601	17,024	36,625
1944	21,990	17,847	39,837
1945	27,472	27,423	54,895
1946	36,484	56,797	93,281
1947 (estimated)	38,971	70,829	109,800

The total number of patients receiving issues in the fiscal year 1946-47 exceeded 78,000.

The Branch carries out considerable research on prostheses in co-operation with the National Research Council and keeps abreast of developments in other countries. The Branch is the Departmental liaison with the Canadian National Institute for the Blind, who extend blind training and after-care service to blinded veterans, the National Institute for the Deaf and the Hard of Hearing on matters relating to veterans with loss of hearing, and the War Amputations of Canada on veteran amputation cases.

Subsection 4.—Dental Services

A brief history of dental services from organization in 1919 to Mar. 31, 1946, is contained in the 1946 edition of the Year Book, at pp. 1059-1060.

Decentralization of the services was completed in October, 1946, with the opening of the last of the district dental offices, at North Bay, Ont. There are now 44 dental clinics in operation in 16 districts. The setting-up and manning of these offices has been the means of overcoming what seemed an almost unsurmountable task. The large back-log of applications for post-discharge dental treatment prevailing at the close of the fiscal year 1945-46 had, with few exceptions, disappeared by early autumn, 1946.

Up to Mar. 31, 1947, approximately 650,000 applicants had been declared eligible and treatment authorized; of these about 11 p.c. had been completed. Treatments supplied and the number of patients whose treatments were completed, by years from 1940 to 1946 are as follows:—

Year Ended Mar. 31—	*Treatments*	*Patients Completely Treated*
	No.	No.
1940	121,604	9,587
1941	99,590	8,020
1942	73,113	7,380
1943	102,554	10,817
1944	66,562	11,841
1945	249,170	23,672
1946	509,703	56,416

Section 4.—Pensions and Allowances

Subsection 1.—The Pension System

Background of Canadian Pensions Legislation.—The Pension Act of 1919 established a Board consisting of three members vested with exclusive power and authority to adjudicate upon pension claims and to award pensions for disability or death related to military service in the War of 1914-18. The Canadian pensions legislation as it developed following the First World War is outlined at pp. 759-760 of the 1943-44 Year Book. The machinery which then took form has been adapted and applied to present circumstances.

Following the outbreak of the Second World War, the provisions of the Pension Act, with certain modifications, were tentatively made applicable to members of the Forces serving in that war, and, in 1941, Parliament appointed a select committee to consider the provisions of the Pension Act, including ex-service men's problems generally, and to make suitable recommendations in regard thereto. After consideration of the Committee's report, which was framed to meet present-day conditions and based on experience gathered in the administration of the Pension Act since the First World War, Parliament decided to make the provisions of that statute, with appropriate amendments, applicable to claims arising out of the Second World War.

Summary and Procedure in Regard to Application.—The provisions of the Pension Act, as originally enacted in 1919, although wide and generous in their scope as compared with pension legislation in other countries, have been considerably broadened and extended by various amendments enacted from time to time during the past twenty-eight years. Amendments to the statute since 1919 have:—

(1) substantially increased the actual amounts of pension payable;
(2) widened the grounds on which pension might be awarded;
(3) authorized certain additional benefits, such as clothing allowances for pensioners compelled to wear artificial appliances, allowances for parents, and special provisions for disability due to tuberculosis;
(4) introduced the principles of personal appearance and public hearings for applicants;
(5) with respect to the War of 1939-45 provided that service anywhere outside of Canada should be regarded as service in a theatre of actual war.

The procedure at present to be followed in dealing with applications for pension, arising out of the First World War is laid down in Sect. 52 of the Act. Briefly, it consists of three stages for applicants whose claims are not initially granted. On first application, the evidence presented is considered at what is known as a first hearing. If the Commission's decision is adverse to the applicant, he is entitled to a second hearing, provided he applies within 90 days of the first hearing. When presenting his claim for second hearing, he is required to include all disabilities which he claims to be due to his military service. Prior to second hearing, the applicant is furnished with a complete and detailed summary of all evidence, available in the departmental records pertaining to his case. He is given every opportunity to review this evidence to include any additional evidence he can secure and is allowed six months from the date of mailing the summary of evidence in which to prepare his claim. When notified by the applicant or his representative that the claim is ready for hearing, the Pensions Commission then gives a decision on second hearing. If this decision is adverse to the applicant, he then has the right to appear before an Appeal Board of the Commission sitting in his district and to call witnesses if he so desires. The judgment of the Appeal Board is final and the application cannot be considered again, except by special permission of an Appeal Board when it is shown, to the satisfaction of such a Board, that an error has been made by reason of evidence not having been presented or otherwise.

This procedure has proved eminently satisfactory for claims arising out of the First World War. Not only is the applicant made fully aware of the reasons which preclude entitlement to a pension, but he is given adequate expert assistance by the Veterans' Bureau or by the service bureaus of ex-service men's organizations in the preparation of his claim. It has resulted in bringing to a finality many claims in which applicants have realized that the evidence of continuity with service of the condition causing disability or death was insufficient.

The procedure affecting cases arising out of the Second World War was revised, however, and, effective Dec. 27, 1944, all-time limits for preparation and presentation of applications in such cases were suspended by Order in Council, the main provisions of which were subsequently incorporated in amendments to the Pension Act passed during the 1946 session of Parliament. When a claim has not been wholly granted, the applicant is advised of his right, under the new legislation, to renew his application without the imposition of any time limits and, when he is ready, he may inform the Commission of his intentions relating to the further prosecution of his claim, either by renewed application or by appeal. The procedure followed is very much in line with that followed in cases of the First World War, other than that there is no time limit imposed and an applicant may by-pass the "renewal hearing" and take his case before an Appeal Board sitting in his District.

In 1945-46, a thorough revision of all legislation passed since the commencement of the War, affecting veterans of the Second World War, was carried out by a select committee of the House of Commons which was appointed to:—

(1) Consider all legislation passed since the commencement of the War with the German Reich relating to the pensions, treatment, and re-establishment of former members of His Majesty's Armed Forces and other persons who have otherwise engaged in pursuits closely related to war;

(2) Prepare and bring in one or more Bills to clarify, amend or supplement the above legislation.

This Committee completed its deliberations in July, 1946, and comprehensive legislation based on its recommendations was incorporated in amendments to the Pension Act, enacted by 10 Geo. VI, c. 62, assented to Aug. 31, 1946.

The most important legislative change resulting from the Committee's recommendations was the restoration of the so-called "Insurance Principle" for members of the Forces who, in the Second World War, did not serve in a theatre of actual war. The operation of this principle which applies to the First World War and, in effect, provides pension coverage for disabilities incurred during service, whether due to service or not, was modified in 1940 so as to apply only to cases in which the member of the Forces had served outside Canada. Following the restoration of the insurance principle, a review of all cases affected by this change was duly carried out by the Canadian Pension Commission, action being taken to institute awards where indicated. Other changes provided for the extension of the benefits of the Canadian Pension Act to persons domiciled in Canada at the commencement of the Second World War, who served in the British Commonwealth of Nations, or Forces of the Allied Nations, and broadened the scope of the statute in its application to Canadians who served in Forces, other than those of Canada, in the First World War.

The Canadian Pension Commission is also responsible for the administration of a statute known as the Civilian War Pensions and Allowance Act, under which pension consideration may be given to claims of merchant seamen, salt-water fishermen, Auxiliary Services personnel, civil defence workers, Corps of (Civilian) Canadian Fire Fighters, Federal Government employees, special constable guards (R.C.M.P.), and certain other civilian groups who rendered essential war services but whose personnel were not actually members of the Forces.

3.—Pensions in Force as at Mar. 31, 1941-47

NOTE.—Figures for the years 1918-40 are given at p. 871 of the 1945 Year Book.

Year Ended Mar. 31—	To Dependents		For Disability		Totals	
	Pensions	Liability	Pensions	Liability	Pensions	Liability
	No.	$	No.	$	No.	$
First World War—						
1941	17,941	10,539,876	79,204	29,058,304	97,145	39,598,180
1942	17,730	10,484,192	77,971	28,194,967	95,701	38,679,159
1943	17,549	10,457,012	76,625	27,354,865	94,174	37,811,877
1944	17,242	10,389,778	75,244	26,595,094	92,486	36,984,872
1945	17,221	10,597,308	73,863	26,543,361	91,084	37,140,669
1946	16,982	10,606,770	72,396	26,523,887	89,378	37,130,657
1947	16,799	10,647,524	70,803	25,957,054	87,602	36,604,578
Second World War—						
1941	319	262,592	319	76,682	638	339,274
1942	929	695,465	1,291	409,556	2,220	1,105,021
1943	2,748	1,949,128	3,917	1,362,110	6,665	3,311,238
1944	5,332	3,794,258	7,231	2,693,855	12,563	6,488,113
1945	11,419	8,333,406	15,506	5,382,842	26,925	13,716,248
1946	16,839	11,982,717	36,454	11,402,255	53,293	23,384,972
1947	17,600	12,027,726	70,633	20,676,689	88,233	32,704,415

Payment of Pecuniary Grants for Gallantry Awards.—Certain gallantry awards, such as the Victoria Cross, Military Cross, Distinguished Flying Cross, Distinguished Conduct Medal, Conspicuous Gallantry Medal and Distinguished Flying Medal, carry with them pecuniary grants, which were formerly paid by the United Kingdom Government. To these were added during the Second World War, the Distinguished Service Medal and the Military Medal which formerly were not accompanied by pecuniary benefits. By Order in Council P.C. 4736, dated June 17, 1943, the Canadian Government, through the Canadian Pension Commission, assumed the payment out of Canadian funds for all awards arising out of the Second World War and the United Kingdom was reimbursed for such awards already paid. As at May 31, 1947, there were 2,255 such awards in payment.

Veterans' Bureau.—The Veterans' Bureau was established in 1930 as a Branch of the Department that is now the Department of Veterans Affairs. Its function is to assist the applicant for war disability pension and present his claim to the Canadian Pension Commission. The relationship of the Veterans' Bureau and the Canadian Pension Commission is practically the same as exists between the members of the Bar and the Judiciary. Bureau Advocates require a comprehensive knowledge of pension law and procedure, and long experience in medico-legal matters as they relate to war disability claim. The Second World War, by its nature, exposed many groups of citizens, other than members of the military forces, to the danger of war disability. These groups such as merchant seamen, fire fighters, Auxiliary Service personnel, air-raid precaution workers and others have been given disability pension rights by statute and Bureau Advocates serve them in addition to ex-members of the military forces.

The policy of the Canadian Pension Commission is to make a pension ruling without application in respect to all members of the military forces who are discharged with a disabling condition. In the large majority of pension claims, therefore, the Veterans' Bureau first appears in a case on a claim by the applicant that the Pension Commission decision is wrong. The move against a Commission decision may take several forms. The applicant may apply for a renewal hearing with additional evidence. He may make several such applications. He may ask for an Appeal Board hearing with or without having had renewal hearings and with or without any additional evidence. With very limited exception, the Appeal Board ruling is a final disposition of the claim. The Appeal Board hearing is held in the applicant's district. It is a hearing before three members of the Pension Commission who have not previously dealt with the claim, and the applicant is there given an opportunity to appear personally with his representative who may be an Advocate from the Veterans' Bureau, or any other person whom he may nominate. He may call witnesses to support his claim and his Advocate has the right to examine and cross-examine witnesses and present argument to the Board. The services of the Veterans' Bureau are free to the applicant. The claimant is represented by a Bureau Advocate in practically 100 p.c. of all claims coming before Appeal Boards. The Pension Act provides that the Veterans' Bureau shall, in each case, prepare a complete summary of all relevant evidence on the departmental file.

Departmental reports covering the period from Sept. 1, 1939, to Mar. 31, 1946, show that 4,879 applications for Appeal Board hearing have been filed in connection with First World War claims. Of these, 915 have been granted and 3,642 refused. A number were withdrawn or have not yet reached decision. During the same period, 5,771 applications were filed by Second World War applicants and of these, 1,055 were granted and 3,137 refused. The Veterans' Bureau had approximately 7,000 pension claims under preparation, in varying stages of activity, as at Mar. 31, 1947.

In addition to assisting the applicant on entitlement claims, the Bureau Advocate is charged with the duty of advising and assisting ex-service personnel or other persons entitled to claim for pension on any phase of pension law or procedure which may have a bearing on the pension claim. There are a great variety of problems which come under the Advocates' attention in this category dealing with assessment of amount of disability following an entitlement award, the degree of aggravation where the Pension Commission have ruled a disease or disability condition as pre-enlistment, the period of time prior to date of award which should be covered by retroactive pension, change in basis of entitlement, additional pension for dependents and many others.

Since its inception in 1930, the Veterans' Bureau has always served in a general way as "soldier's friend", and Advocates in all offices across Canada are daily called on to advise and assist in matters quite apart from war disability pensions.

Subsection 2.—War Veterans' Allowances

The War Veterans' Allowance Act was introduced in 1930 to make provision for the maintenance of veterans of the Canadian Expeditionary Force; veterans of His Majesty's Forces or the Forces of His Majesty's Allies who were domiciled in Canada at the time of enlistment for the First World War, provided they were incapable of maintaining themselves on attaining the age of 60 or at any age, if permanently unemployable.

The War Veterans' Allowance Act, 1946, was enacted in August, 1946 to replace the entire legislation. It enables the Board to grant allowances to the following:—

(1) A veteran of the North West Field Force.
(2) A veteran of the South African War.
(3) A veteran of the First World War, 1914-18.
(4) A veteran of the Second World War, 1939-45.
(5) A member of the South African Military Nursing services, domiciled and resident in Canada prior to becoming a member and who has served any place outside Canada.
(6) A person domiciled and resident in Canada certified by the Under Secretary of State for External Affairs as having been enrolled by the United Kingdom authorities for special duty in war areas during the Second World War.
(7) Duly selected and approved supervisors of—
    (a) Canadian Legion War Services Inc.
    (b) The National Council of the Young Men's Christian Association of Canada.
    (c) Knights of Columbus Canadian Army Huts, or
    (d) Salvation Army Canadian War Services who served outside the Western Hemisphere.
(8) Dual Service Veterans:
    (a) Former members of the Canadian Expeditionary Force who served during the First World War and also served in the C.A.S.F. in the Second World War.
    (b) Former members of His Majesty's Forces who were domiciled in Canada at time of enlistment in said Forces in the First World War and who also served in the Canadian Forces during the Second World War.
(9) Widows and orphaned children of the above veterans.

The War Veterans' Allowance Act now provides for three classes of veterans:—

(1) The veteran who has attained the age of 60 years.
(2) The veteran of any age who, because of physical or mental disabilities, is permanently unemployable.
(3) The veteran, regardless of age, who is, in the opinion of the Board, incapable of maintaining himself and unlikely to become capable due to a combination of reasons or handicaps, physical, mental or economic.

Classes (1) and (2) must have served in a "theatre of actual war", or be in receipt of pension or have received a final payment by agreement in commutation of pension. Widows and orphans of veterans are admitted to the benefits of the Act providing the veteran himself was eligible during his lifetime.

While the amount of any allowance payable is discretionary with the Board, the maximum permissive income from all sources (including War Veterans' Allowances) for a single veteran is $490 per annum and $980 for a married veteran or widower with dependent children. The basic allowance under the Act is $30·41 and $60·83 per month to single and married veterans, respectively, but the maximum permissive income from all sources remains as outlined above.

Provision has been made for (veterans' care) treatment for recipients of War Veterans' Allowances other than widows. Also, provision has been made for the continuation of an allowance on behalf of a child until the age of 21 years, for educational purposes. Applicants must have been domiciled in Canada for the three months immediately preceding date of commencement of allowance, and allowances are not payable outside the Dominion of Canada. Old Age Pension and War Veterans' Allowance or Widows' Allowance cannot be paid concurrently.

The basic allowances for widows are:—

(1) $365 per annum to a widow without dependent children.
(2) $730 per annum to a widow with dependent children.

The basic allowances for orphans are:—

(1) $365 per annum for one orphaned child.
(2) $648 per annum for two orphaned children.
(3) $730 per annum for more than two orphaned children.

The following exemptions from income are allowed:—

(1) Single recipient: income from any source not exceeding $125 per annum.
(2) Married recipient: income from any source not exceeding $250 per annum.

In addition, the following exemptions are provided for all groups of recipients where applicable:—

(1) Casual earnings not exceeding $125 in any year.
(2) Unearned income not exceeding $25 per annum.
(3) Provincial or municipal relief or Mothers' Allowance paid on behalf of dependent children.
(4) Any gratuity paid or credit grant under the War Service Grants Act, 1944.
(5) Any sum payable under Sec. 26 of the Pension Act.
(6) Any additional allowance paid under the Pension Act on account of any children.
(7) Any pension or grant received by reason of a military decoration.
(8) Any allowance payable under the Family Allowances Act, 1944.
(9) Property in which the recipient resides is not taken into account providing its capital value does not exceed $4,000.

Since the enactment of the Legislation to Mar. 31, 1946, a total of 43,327 awards have been made by the War Veterans' Allowance Board. Of these, 15,015 were discontinued because of death and other reasons, leaving 28,312 recipients representing an annual liability of $12,010,349.

Section 5.—Rehabilitation of Veterans

The functions of the Administrative Division of the Rehabilitation Branch of the Department of Veterans Affairs are given at pp. 1065-1067 of the 1946 Year Book. In brief this Division is responsible for:—

(1) Administration of out-of-work allowances.
(2) Administration of allowances for veterans awaiting returns from private enterprise—business or farming—engaged in on their own account.
(3) Administration of allowances available to veterans who are temporarily incapacitated.
(4) Administration of the Unemployment Insurance contributions, payable for the period of service (or from June 30, 1941) on the completion of fifteen weeks in insurable employment after discharge.

Subsection 1.—Discharges, Employment and Allowances

Discharges and Employment.—By Feb. 28, 1947, the work of demobilization was to all intents and purposes completed. Only 4,000 to 5,000 individuals were left in the Armed Forces who were then to be returned to civil life. Cumulative discharges from September, 1939, to February, 1947, were as follows:—

Service	*Male*	*Female*	*Total*
	No.	No.	No.
Navy	87,604	6,546	94,150
Army	646,357	24,863	671,220
Air Force	199,456	16,987	216,443

Total discharges as at the end of February, 1947, numbered 981,813.*

Although the numbers of veterans who have taken advantage of the Vocational Training, Educational Training, and Veterans' Land Act provisions seem large, the majority have returned to civil employment. Their return to civil life was greatly aided by the work of the National Employment Service of the Department of Labour, which, through a policy of veterans preference, had made 744,773 placements from September, 1943, to February, 1947, on behalf of veterans; 639,548 of these placements were made on behalf of veterans of the Second World War. This figure does not represent the number of veterans placed as two or more placements are often made in an attempt to settle a veteran after discharge. In addition to those normal placement operations, between August, 1945, and January, 1947, some 171,000 veterans had been, through the facilities of the National Employment Service, reinstated in their pre-war jobs under the Re-Instatement in Civil Employment Act.

Unemployment among veterans of the Second World War has not, on the whole, been serious at any time so far. The peak of unemployment was reached during the first quarter of 1946, when it followed the seasonal trend. Table 4 shows the number of veterans registered with the National Employment Service as unemployed.

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* Based on National Defence Headquarters information.

4.—Veterans Registered with the National Employment Service as Unemployed, by Months and Sex, January, 1946, to February, 1947

Year and Month	Veterans of the First World War		Veterans of the Second World War		Veterans with Dual Service	
	Men	Women	Men	Women	Men	Women
	No.	No.	No.	No.	No.	No.
1946						
January	9,561	6	47,855	892	1,547	Nil
February	10,265	5	59,219	1,051	1,765	“
March	10,509	4	69,428	1,215	1,873	“
April	9,440	5	68,876	1,198	1,688	“
May	8,089	6	61,650	1,131	1,494	“
June	6,931	4	41,658	1,165	1,409	1
July	6,412	6	45,665	1,159	1,493	Nil
August	5,927	4	41,098	1,121	1,376	“
September	5,740	3	37,792	1,226	1,386	“
October	5,519	2	36,621	1,136	1,576	“
November	5,835	2	39,519	957	1,778	“
December	6,160	2	44,967	808	1,921	“
1947						
January	6,887	2	51,481	1,114	2,165	“
February	7,129	2	50,569	1,124	2,422	1

In February, 1946, the unemployed Second World War and dual-service veterans formed 8·6 p.c. of the number discharged to that time, while in March, 1947, the numbers unemployed formed 5·2 p.c. of those discharged.

Out-of-Work Allowances.—This Allowance has been the means of assisting up to Mar. 31, 1947, some 145,869 veterans towards becoming re-established in civil life. As would be expected, the majority of these veterans made use of the Allowance during the calendar year of 1946 when they were being discharged from the Armed Forces in such large numbers. The record of the number of veterans assisted in this manner is as follows:—

5.—Veterans Receiving Out-of-Work Allowances, by Sex, Years ended Mar. 31, 1943-47

Years Ended Mar. 31—	Men	Women	Total
	No.	No.	No.
1943[1]	2,045	Nil	2,045
1944	823	123	946
1945	3,145	83	3,228
1946	39,176	436	39,612
1947[2]	98,055	1,983	100,038
Totals	**143,244**	**2,625**	**145,869**

[1] November, 1941, to Mar. 31, 1943. [2] Apr. 1, 1946, to Feb. 28, 1947.

The number of veterans receiving the Allowance at any given time is gradually decreasing compared with the number of veterans unemployed. From March to June, 1946, the number was from 60 to 70 p.c. of those registered as unemployed; for January and February of 1947, it was 41 p.c. There are three main reasons why this situation exists: (1) the individual may not receive the Allowance for the first nine days of unemployment; (2) the individual may not receive the Allowance for the period covered by the Rehabilitation Grant (becoming less important as the number of discharges decreases); (3) the limited period of entitlement (becoming increasingly important as the number discharged 18 months or more increases).

Experience has shown that, although it has been necessary to carry some individuals on the Allowance for a period in excess of 40 weeks (the maximum allowable is 52 weeks) the majority of veterans receiving this type of assistance require it for a period of less than 10 weeks.

6.—Veterans in Receipt of Out-of-Work and Awaiting Returns Allowances, Classified by Sex, by Months, January, 1946, to March, 1947

Year and Month	Out of Work			Awaiting Returns		
	Men	Women	Total	Men	Women	Total
1946	No.	No.	No.	No.	No.	No.
January	21,569	129	21,698	3,615	13	3,628
February	32,568	249	32,817	5,318	17	5,335
March	43,185	339	43,524	7,691	26	7,717
April	48,104	417	48,521	10,654	36	10,690
May	42,948	483	43,431	14,757	48	14,805
June	32,957	395	33,352	19,766	58	19,824
July	25,502	401	25,903	23,558	69	23,627
August	22,059	410	22,469	24,762	72	24,834
September	19,057	295	19,352	18,840	60	18,900
October	17,560	235	17,795	16,428	61	16,489
November	16,112	256	16,368	13,534	64	13,598
December	17,651	242	17,893	12,447	62	12,509
1947						
January	22,056	234	22,290	12,285	60	12,345
February	24,482	285	24,767	11,986	64	12,050
March	24,058	297	24,355	12,162	60	12,222

Awaiting Returns Allowance.—This allowance has been instrumental in assisting, up to Feb. 28, 1947, about 42,250 veterans who, in order to become settled in civilian life, have attempted to take up an occupation on their own account. The occupational distribution of these veterans is quite interesting and is shown in Table 7; the district centre is the location of the Department of Veterans Affairs district office and the figures quoted cover the areas administered by these offices.

7.—Applications Approved for Awaiting Returns Allowance, by Geographic Areas and by Nature of "Own Account" Business as at Feb. 28, 1947

(V.L.A.=Veterans' Land Act)

District Centre for Area	Full-time Farming		Commercial Fishing		General Business	Total
	Not V.L.A.	V.L.A.	Not V.L.A.	V.L.A.		
	No.	No.	No.	No.	No.	No.
Charlottetown, P.E.I.	382	277	197	50	343	1,249
Halifax, N.S.	588	214	346	18	984	2,150
Saint John, N.B.	707	163	77	14	356	1,317
Quebec, Que.	96	103	28	1	373	601
Montreal, Que.	290	386	–	–	1,684	2,360
Ottawa, Ont.	240	200	–	–	943	1,383
Kingston, Ont.	142	285	8	6	678	1,119
Toronto, Ont.	385	374	3	4	1,357	2,123
North Bay, Ont.	111	60	1	–	85	257
Hamilton, Ont.	138	115	4	–	459	716
London, Ont.	735	370	11	4	1,088	2,208
Winnipeg, Man.	2,393	1,389	22	4	2,078	5,886
Regina, Sask.	3,383	227	–	–	390	4,000
Saskatoon, Sask.	3,441	525	1	1	500	4,468
Calgary, Alta.	1,487	437	–	–	1,354	3,278
Edmonton, Alta.	2,409	1,207	4	–	1,106	4,726
Vancouver, B.C.	846	159	109	3	2,254	3,371
Victoria, B.C.	86	26	72	1	853	1,038
Totals	**17,859**	**6,517**	**883**	**106**	**16,885**	**42,250**

The value of the legislation authorizing this Allowance is best shown by the number of veterans utilizing the Allowance and by the results so far produced. Of the number of veterans who, up to Feb. 28, 1947, had discontinued the use of the Allowance about 83 p.c. had been satisfactorily established, and had drawn the allowance for an average of 24 weeks.

Because of the large number of veterans settling in agriculture, the payment of this Allowance has shown a decided seasonal variation, reaching a peak in August, 1946, when approximately 25,000 veterans received the Allowance during the month, and settling down to approximately 12,000 veterans receiving the Allowance in February, 1947. A considerable number of those who received the Allowance during the summer, while engaged on their own account, became employed in wage-earning occupations during the winter and will, it is believed, return to their farms in the spring.

Temporary Incapacity Allowances.—The number of veterans who have received assistance under this provision has been relatively small compared with the numbers utilizing the other allowances. To Feb. 28, 1947, some 3,916 veterans had received this Allowance. The number in receipt of the allowance at any given time has been quite small and has rarely exceeded 120 since the end of the War.

Unemployment Insurance Contributions.—During the calendar year 1946, there was a great increase in the numbers of veterans on whose behalf contribution to the Unemployment Insurance Fund was paid; this follows the settling down of veterans in insurable occupations. From November, 1941, to March, 1947, contributions were paid on behalf of 136,163 veterans as follows:—

Year Ended Mar. 31—	*No.*
1942[1]	7
1943	334
1944	4,388
1945	15,289
1946	31,940
1947	84,205
TOTAL	136,163

[1] Nov., 1941 to Mar. 31, 1942.

Subsection 2.—Vocational Training

The vocational training program, authorized under the Veterans' Rehabilitation Act, is dealt with in the Labour Chapter at pp. 632-634, and the university training program for veterans in the Education Chapter at pp. 288-290.

Subsection 3.—The Veterans' Land Act

The Veterans' Land Act is designed to assist the veteran who is eligible by reason of required active service, and qualified for the particular undertaking, in becoming established on the land in full-time farming, part-time farming (small holding), or commercial fishing. Its financial benefits enable the veteran to start off with a substantial equity, which past experience has demonstrated is essential to sound land settlement credit operations. The Director of the Act may:—

(a) Contract with any veteran duly certified as qualified, for the sale of land and the provision of permanent improvements, live stock and farm equipment or fishing gear up to a total cost of $6,000.

(b) Contract with such veteran occupying suitable farm land under private agreement of sale, or lease of reasonably long duration, for the sale of land, permanent improvements, building materials, live stock and farm equipment, up to a total of $5,800.

(c) Loan on the security of a first mortgage on a farm already owned by the veteran up to $4,400 for the consolidation of debts and improvement of farm—including the purchase of live stock and farm machinery.

(d) Grant to such veteran up to $2,320 to assist in his establishment on provincial Crown land; or in the case of an Indian veteran on Indian Reserve land.

Space does not permit mention of the various financial terms other than that each settlement except item (c) carries with it a grant of up to $2,320, conditional on satisfactory fulfilment of settlement contract for 10 years. The loan portion of a contract may be amortized over a period of up to 25 years with interest at 3½ p.c. Item (c) is wholly repayable, but it does not extinguish right to re-establishment credit as is the case in (a), (b) and (d).

The Act is more fully dealt with at pp. 1072-1073 of the 1946 Year Book, though two important changes were made during 1946:—

(1) Subsection 3 was added to Section 9 of the Act to enable the Director to assist in the re-establishment of the veteran occupying a suitable farm under lease or purchase agreement. This was referred to in (b) above. Up to $3,000 of the total assistance available may be expended for live stock and farm equipment, but on such expenditure the veteran must make a down payment of 20 p.c. of the cost to the Director; plus 10 p.c. of such cost for land, improvements thereon, and building materials.

(2) Regulation 22A was enacted by Order in Council dated Sept. 12, 1946, and amended on Nov. 28 following. By this regulation the minimum area of a part-time farm (small holding) was fixed at two acres when the cost of land and a suitable supply of water is in excess of the rate of $500 per acre; and three acres when such cost is at the rate of $500 per acre or less. Exceptions were provided for to enable settlement on smaller sized plots of land of a veteran in receipt of a disability pension of 50 p.c. or more; in commercial fishing establishments; and where commitments were made respecting specific properties prior to the effective date of the regulation, Sept. 12, 1946.

The calendar year 1946 witnessed rather heavy settlement operations under the Veterans' Land Act, a total of 37,015 (net) veterans being qualified, and financial assistance being approved for 19,138 (net); 2,599 houses were constructed ready for occupancy during the year, 2,375 of which were built under multiple-unit contracts on departmental subdivisions, and 224 under individual contracts for specific veterans. Agreements have been reached with all provinces, other than Nova Scotia and Prince Edward Island, for settlement of veterans on provincial lands.

10.—Summary of Operations under the Veterans' Land Act, 1942, as at Dec. 31, 1946

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Dominion Lands	Total
Applications for Qualification—						
Applications (net) ... No.	[1]	[1]	[1]	[1]	[1]	75,789
Qualified (net) ... “	23,141	22,982	711	3,141	94	50,069
Lands Appraised and Purchased—						
Approved ... No.	14,366	9,468	343	Nil	Nil	24,177
Purchase completed ... “	8,200	6,991	283	“	“	15,474
Average price per acre with existing improvements ... $	22·29	392·88	71·27	“	“	—
Applications for Financial Assistance (Sect. 9-1)—						
Approved (net) ... No.	11,308	9,497	373	Nil	Nil	21,178
Average amount for land and permanent improvements ... $	4,041	4,660	2,586	“	“	—
Average amount for stock and equipment ... $	1,164	361	1,155	“	“	—
Applications for Financial Assistance (Sect. 9-3)—						
Approved (net) ... No.	137	Nil	Nil	Nil	Nil	137
Average amount for stock and equipment ... $	2,326	“	“	“	“	2,326
Applications for Financial Assistance (Sect. 13—Mortgage Loans)—						
Approved (net) ... No.	218	39	Nil	Nil	Nil	257
Average amount for removal of encumbrance and for permanent improvements ... $	935	1,830	“	“	“	—
Average amount for stock and equipment ... $	1,196	72	“	“	“	—
Applications for Financial Assistance (Sect. 35)—						
Approved (net) ... No.	Nil	Nil	Nil	889	31	920
Average amount for permanent improvements ... $	“	“	“	708	2,320	—
Average amount for stock and equipment ... $	“	“	“	1,541	Nil	—
Applications for Financial Assistance (Sect. 35A—Indian Veterans on Indian Reserves)—						
Approved (net) ... No.	Nil	Nil	Nil	Nil	347	347
Average amount for land and permanent improvements ... $	“	“	“	“	756	—
Average amount for stock and equipment ... $	“	“	“	“	1,148	—

[1] Total cannot be entirely broken down.

11.—Summary of Operations Carried out under the Soldier Settlement Act, 1919, as at Dec. 31, 1946

Province	Applications Made	Persons Established	Still in Scheme	Repaid in Cash	Repaid by Time Sale	Adjustment Cases
	No.	No.	No.	No.	No.	No.
Maritime Provinces	4,553	1,556	193	537	63	763
Quebec	2,796	494	23	105	23	343
Ontario	8,462	1,972	238	742	89	903
Manitoba	10,123	3,715	320	555	60	2,780
Saskatchewan	15,165	6,164	1,231	1,518	236	3,179
Alberta	15,285	7,158	1,220	1,787	367	3,784
British Columbia	11,131	3,734	427	1,013	301	1,993
Totals	**67,515**	**24,793**	**3,652**	**6,257**	**1,139**	**13,745**

Subsection 4.—Casualty Rehabilitation

The successful rehabilitation of seriously disabled veterans is one of the major responsibilities of the Department of Veterans Affairs. The objective of rehabilitation for the seriously disabled is their restoration to the optimum physical, mental, social, economic and vocational adjustment and usefulness of which they are capable.

Rehabilitation of casualties commences with medical treatment, and the process is not complete until the disabled veteran secures his place in a suitable job. Among the significant services are: medical treatment including physical rehabilitation; the provision and fitting of artificial devices such as limbs, braces and hearing aids; financial protection during the adjustment period; vocational guidance and general counselling; educational or vocational training; land settlement; assistance towards securing suitable employment; and medical and vocational after care. Specialists' services, such as those of psychologists and social workers are obtained as required.

All Divisions and Branches of the Department of Veterans Affairs, the details of whose operations are described elsewhere in this and other chapters (see Index) include the Canadian Vocational Training program and the National Employment Service of the Department of Labour which contribute in varying degree to the integrated process of rehabilitation.

Recognizing the individual needs of each disabled veteran, and that rehabilitation services must be applied to each case in a manner most likely to meet these needs it became apparent that individual and continuous attention is an essential element in their rehabilitation. For this reason, early in the fiscal year 1945-46, a Casualty Rehabilitation Section was created as a part of the Rehabilitation Branch. In the fiscal year of 1946-47 its services have expanded in quantity and quality. Qualified Casualty Rehabilitation Officers provide disabled veterans with vocational guidance and general counselling, assisting them in their employment placements, and maintain a service of vocational after-care, or post-employment adjustment. The Casualty Rehabilitation Officer's service to the disabled veteran commences soon after his admission to hospital, and continuous contact and service is maintained in each case until re-establishment ensues.

A staff of Casualty Rehabilitation Officers is attached to each Departmental District. Their duties include the making of contacts with employers and citizens as well as governmental and community agencies.

The Casualty Rehabilitation Section has maintained a continuous campaign directed towards public and employer relations. During the year, officers of the Section made addresses, showed educational films and displayed exhibits to 571 organizations such as Service Clubs, Foremen's Clubs, Personnel Managers' Associations and others. Informative booklets were prepared and distributed and press and radio publicity was sponsored.

The Department maintains close and valuable relations with Associations serving the disabled, such as the Canadian National Institute for the Blind, the War Amputations of Canada, the National Society for the Deaf and Hard of Hearing, and the Canadian Paraplegic Association.

The Casualty Rehabilitation Section registers for service only those veterans with serious disabilities. There were 27,531 such veterans registered with the Section on Mar. 31, 1947. Their primary disabilities were as shown in the following statement:

DISTRIBUTION OF DISABLED VETERANS ACCORDING TO PRIMARY DISABILITY AND REHABILITATION STATUS

Primary Disability	*No.*
Disabilities of the Muscular, Skeletal, and Peripheral Nervous Systems	9,649
Amputations	1,895
Hearing Disabilities	369
Seeing Disabilities	969
Pulmonary Tuberculosis and other Respiratory Disabilities	7,511
Cardio Vascular Disabilities	1,902
Organic Neurological Disabilities other than the Peripheral Nervous Systems	845
Psychiatric Disabilities	641
Miscellaneous Disabilities	3,750
TOTAL	27,531

Rehabilitation Status	*No.*
Employed	11,665
In hospital	5,440
Under service but not ready for employment	4,795
Training	872
Ready for employment but still unemployed	1,886
Registered but not under service	2,612
Service contact lost	261
TOTAL	27,531

A study of two of the main disability groups, that is amputees and paraplegics shows that at Mar. 31, 1947, there were 1,322 amputees employed and performing successfully a complete range of jobs from farmer to fisherman, lawyer to log scaler, tailor to tinsman, doctor to dock worker, accountant to artist. There were 62 in training, 114 in hospital, 199 under service but not yet ready for work, 131 ready for employment but still unemployed, and 67 on which contact had been lost. At Jan. 31, 1947, of the 488 paraplegics or near paraplegic-veterans whose legs are wholly or partially paralyzed—187 were employed, 160 were in hospital, 27 were in training, 72 were under service but were still unable to find suitable employment, and contact had been lost with 42.

Paraplegia is one of the most serious of all disabilities. Until relatively recently, paraplegics were considered to be permanent invalids, doomed to a bedfast existence. It must be emphasized that there is a great deal of work ahead in the rehabilitation of the disabled, and that much has yet to be learned. Nevertheless, the strides which have been made in the rehabilitation of paraplegics, through the combined efforts of medical, vocational and social sciences, and the attitude of the disabled themselves, and of the community, provides a most hopeful and encouraging pattern for the future welfare of all the disabled.

Subsection 5.—Rehabilitation of Women

By December, 1946, all of the nearly 50,000 women members of the Canadian Armed Forces had been demobilized, with the exception of a few Nursing Sisters and Dietitians. During the First World War, only the Nursing Service was open to women, but the Second World War saw women serving in the Army, Navy and Air Force in almost every capacity.

As a natural sequence to the established ratio of one woman to every twenty men in the Armed Forces, vacancies were designated on the Staff of the Rehabilitation Branch of the Department of Veterans Affairs for women executives and counsellors. In December, 1944, a woman was appointed as Executive Assistant to the Director General of Rehabilitation to render general administrative assistance and advise on the rehabilitation of women. In July, 1945, a Superintendent of Women's Rehabilitation was appointed, whose duties included supervision of Field Staff and a direct responsibility to the Director General on matters of policy. Between April, 1945, and December, 1946, 21 counsellors and 19 interviewers were appointed.

Training for ex-service women under the auspices of the Department of Veterans Affairs is on the same basis and at the same rates as for the male veterans. Up to the end of 1946, a total of 10,097 women veterans had availed themselves of opportunities for training, 20 p.c. of the total number of ex-service women. Of that number, 8,013 women had entered into some phase of vocational training, and 2,084 had chosen university courses or matriculation courses leading to university. Follow-up on these cases by district staffs indicates that little difficulty has been encountered to date with respect to employment on completion of vocational training. In most instances, through a three-way liaison, Department of Veterans Affairs-Canadian Vocational Training-National Employment Service, employment for individuals is arranged as the classes draw to a conclusion. Many have taken training-on-the-job in such diversified occupations as florist, fur finisher and cutter, photographer, etc. Altogether, women have trained for approximately 100 occupations.

At the end of December, 1946, 21,288 applications for re-establishment credit to the amount of approximately $2,100,000 had been approved for ex-service women. As at the same date, 61 had qualified under the Veterans' Land Act, most of them established on small holdings, but a few owning and operating farms under the full-time farming arrangement.

Pensioners among the women up to December, 1946, numbered 489. They receive the same pension rates as the men and the same consideration in the matter of training and employment. Liaison between the Women's Section of the Department of Veterans Affairs and the Casualty Rehabilitation Section has resulted in hospital visiting for the purpose of counselling toward employment or training upon discharge from the hospital, or arranging for correspondence courses during hospitalization.

During their service careers, many women formed new concepts of the opportunities for employment available in civilian life. For the first time, in many cases, these women could *choose* a career. With the co-operation of the National Employment Service, veterans who wish it are assisted in obtaining employment in keeping with their experience and academic background. It is sometimes necessary for the counsellor to re-counsel the woman more than once before she is successfully established in permanent employment. Each time an application for Out-of-Work Allowances is received, personal follow-up is carried out in the hope that the applicant can be trained for, or re-counselled into suitable alternative employment. At the end of 1946, recorded placements of women veterans through National Employment Service numbered approximately 12,000.

Citizens Committees and Women's Clubs and organizations have been invaluable in helping the ex-service woman become integrated back into community life. Full co-operation with Department of Veterans Affairs has been given, particularly in the matter of finding accommodation for the women who have moved to other centres to take training or employment. Clubs in many communities have given their support in personally contacting the veteran on her return home, and have been instrumental in helping her face real or potential problems.

Subsection 6.—Rehabilitation of Older Veterans

Early in 1946, the Department of Veterans Affairs added to its establishment a special adviser to the Deputy Minister, concerning veterans of both World Wars. The responsibilities of this official included developing and conducting a program of planned rehabilitation assistance to approximately 50,000 veterans of the First World War who also served in the Second World War, and the ever increasing number of veterans of the First World War who had acquired age but not security. Many of these latter had made a contribution in war industry but were handicapped on account of their age and other factors.

The main problem facing these older veterans was employment; the average of their educational standard was low and they were too old to take advantage of the training provisions under the Canadian Rehabilitation Program. Many of them were able to perform only work not requiring great skill or undue physical endeavour. The first step was to carefully screen and classify their abilities and characteristics with a view to finding the right kind of gainful employment for each one. The National Employment Service assisted in this.

The Department recognized that the Corps of Commissionaires was a ready-made, volunteer, non-profit organization already devoted, on a limited scale, to employment of uniformed older veterans, and obtained the co-operation of this organization to expand and provide employment for as many additional veterans as possible. During 1946, the Government led the way by authorizing Departments to contract with the Corps of Commissionaires for the provision of guards, messengers, etc., not within the provisions of the Civil Service Commission. Crown Companies followed this lead with successful results and considerable progress was made with private businesses towards the same end.

In addition, the National Employment Service, assisted by officials of the Department of Veterans Affairs and Citizens' Rehabilitation Committees, developed a steady pressure on employers to accept older veterans for jobs they could do. The considerable success, achieved in this endeavour is indicated by the fact that at Mar. 31, 1946, there were 12,392 older veterans registered as unemployed. Subsequently an additional 5,000 were discharged from the Armed Services and registered with the National Employment Service. At the end of December, 1946, only 8,081 of the total 17,392 registered remained unplaced, showing a reduction of 9,391 during the nine months.

Many of these older veterans are eligible for assistance under the War Veterans' Allowance Act, or post-discharge unemployment benefits, but the establishment of this Branch of the Department was predicated on the belief that it is desirable, both from the standpoint of the nation and the individual, to employ these men in positions for which they are suited rather than to support them on allowances.

Subsection 7.—Assistance in Social Problems

The Social Service Division of the Department of Veterans Affairs was organized in order to assist the Department with social problems. Its purpose is to co-ordinate the social service activities of the Department and to work in close co-operation with local social agencies, community chests and councils, municipal, provincial and federal social service departments, as well as with schools of social work, in order to provide the best possible social service to veterans. A basic assumption is that the Department must not establish any service for veterans which is already available to the veteran as a member of the community in which he lives. The Department will direct its efforts toward making available to the veteran services that already exist and helping him to use them intelligently. Where such services are not already in existence, the Division will encourage their development to serve the whole community rather than the veteran alone. It is hoped, in this way, to enable the veteran to think of himself as a civilian and as a member of the community in which he lives rather than someone set apart from the rest of the community because of his war service.

The Division has social workers in ten Districts and plans to have a service operating in most of the other Districts almost immediately. One of the tasks of the social workers is to get the full weight of the community social agencies behind the D. V. A. Rehabilitation program. Another is to assist in the co-ordination of investigations and to make more use of existing community services for this purpose, and a third task is to develop a medical social work program in departmental hospitals and clinics.

In most Districts the program is in its first stage of development. It is planned to develop the program on a professional basis by using trained social workers in all social work positions.

Section 6.—Veterans Insurance

The Veterans Insurance Act which came into force on Feb. 20, 1945 provides that a veteran who was engaged in service during the Second World War, or the widow or widower of a veteran, or a pensioner under the Pension Act in receipt of a pension relating to the War, may contract with the Government of Canada for life insurance. Eligibility was extended by Order in Council P.C. 467 of Feb. 7, 1947, to members of the Permanent Force and Interim Force. The period of eligibility ends three years after the coming into force of the Act or three years after discharge from Service, whichever is later. For the Permanent Force and Interim Force, generally, it will end on Mar. 31, 1949.

The amount of insurance may be any multiple of $500 up to a maximum of $10,000. The plans of insurance available are 10 Payment Life, 15 Payment Life, 20 Payment Life, and Life with premiums payable until age 65 or age 85. The policies are non-participating.

Premiums on veterans insurance may be paid monthly, quarterly, semi-annually or annually. They may be paid in cash or from Re-establishment Credit or by deduction from any pension granted under the Pension Act. The policy contracts include a provision that, in the event of total and permanent disability occurring before age 60, premiums falling due during the disability are waived. No extra premiums are charged for residence, travel or occupational hazards.

After the end of the second policy year a liberal cash value is available. It may be used alternatively to provide Reduced Paid-up Insurance or Extended Term Insurance. A veteran's insurance policy is not assignable, nor is a loan value granted.

The maximum amount of insurance money that will be paid in a lump sum in cash at death is $1,000. The balance must be paid to the beneficiary as an annuity certain or as a life annuity with or without a guaranteed period.

12.—Summary Statistics of Veterans Insurance, Years Ended Mar. 31, 1946 and 1947

Year Ended Mar 31—	Insurance Issued during Year		Insurance in Force at End of Year		Death Claims Approved during Year	
	No.	$	No.	$	No.	$
1946	4,013	11,971,500	3,914	11,708,500	1	500
1947	6,442	18,783,000	10,077	29,658,000	17	55,500

CHAPTER XXXI.—MISCELLANEOUS ADMINISTRATION

CONSPECTUS

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Note.—Certain phases of Federal Government activity, such as the operations of the International Joint Commission and certain scientific activities of the Department of Mines and Resources were dealt with in this Chapter of the 1930 edition of the Year Book (pp. 1014-17). These branches of the Miscellaneous Administration have not undergone wide change and, therefore, the material has not been republished since that time.

Section 1.—Public Lands

In Table 1, summarizing the land area of Canada, items 3, 4 and 5 are obtained from Federal Government sources and items 1, 2 and 7 from Provincial Government sources. In the majority of cases the area of provincial lands (item 6), as calculated by balancing the figures, agrees with the area as estimated by the Provincial Departments concerned. Thus, any differences reported from year to year in the area of lands alienated or in process of alienation are compensated for by the adjustment of lands still remaining under the Crown in the right of the provinces concerned.

1.—Classification of Lands in Canada, by Tenure (*circa*) 1947

Note.—The land area of Canada classified by surface resources is shown at pp. 32-33.

Tenure	P.E.I.	N.S.	N.B.	Que.	Ont.
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated, patented, granted, etc.	2,174	16,711[1]	16,266	37,500	40,286
2. In process of alienation	Nil	Nil	400	6,000	62
3. Dominion lands other than National Parks and Indian Reserves	"	13	38	30	161
4. Dominion National Parks	7	391	[2]	26[3]	12
5. Indian Reserves	3	31	59	287	2,037
6. Provincial lands, including leased lands and forest reserves, but not Provincial Parks	Nil	3,597	10,710	471,982	315,232
7. Provincial Parks	"	Nil	Nil	8,035	5,492
Totals, Land Area	**2,184**	**20,743**	**27,473**	**523,860**	**363,282**

For footnotes, see end of table, p. 1157.

1.—Classification of Lands in Canada, by Tenure, (*circa*) **1947**—concluded

Tenure	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated, patented, granted, etc.	44,088	103,705	74,744	17,569	52	353,095[4]
2. In process of alienation	117	770	3,273	1,305	10	11,937
3. Dominion lands other than National Parks and Indian Reserves	3	47	103	161	1,455,088[5]	1,455,644[4]
4. Dominion National Parks	1,148	1,869	20,937[6]	1,671	3,625[7]	29,686[3]
5. Indian Reserves	755	1,865	2,194	1,300	9	8,540
6. Provincial lands, including leased lands and forest reserves, but not Provincial Parks	173,612	128,036	147,546	320,377	Nil	1,571,092
7. Provincial Parks	Nil	1,683	3	16,896	"	32,109
Totals, Land Area	**219,723**	**237,975**	**248,800**	**359,279**	**1,458,784**	**3,462,103**

[1] Includes lands in process of alienation. [2] Less than one square mile. [3] Includes the Gatineau Park (25 miles) and the Quebec Battlefields Park (0·36 miles) which are under Dominion jurisdiction but which are not technically "National Parks". [4] See footnotes to constituent items. [5] Includes 952,849 square miles set aside by Order in Council as native game preserves in which only Indians and Eskimos may hunt, as game sanctuaries in which hunting and trapping is forbidden, and as reserves for reindeer grazing, but which are not regarded as national parks. [6] Includes Wood Buffalo Park (which, although reserved by the Dominion, is not administered as a national park) and the Tar Sands Reserve (2,068 acres). [7] Includes that portion of the Wood Buffalo Park in N.W.T.

Subsection 1.—Dominion Public Lands*

The public lands under the administration of the Federal Government comprise: lands in the Northwest Territories, including the Arctic Archipelago and the islands in Hudson Strait, Hudson Bay and James Bay; lands in Yukon Territory; National Parks and historic sites (see pp. 33-38); forest experiment stations; experimental farms; Indian reserves (see p. 1163); Ordnance and Admiralty lands; and, in general, all lands held by the several Departments of the Federal Government for various purposes connected with Dominion administration, including the Tar Sands Reservation comprising four areas, amounting in all to 2,068 acres, in the Fort McMurray District of Alberta. The lands and other natural resources lying within the boundaries of the Provinces of Manitoba, Saskatchewan, Alberta and British Columbia formerly administered by the Federal Government, were transferred in 1930 to the administration of the Provinces concerned.

The great bulk of the land areas under Dominion administration are those of Yukon and the Northwest Territories, amounting to about 1,458,784 square miles or 42 p.c. of the land surface of Canada. In general, the southern border of both Yukon and the Northwest Territories is 60° N. latitude. In Europe, the cities of Oslo, Stockholm and Leningrad are near this line; about three-fourths of Norway, two-thirds of Sweden, Finland and a large portion of Russia are north of it. This northern part of the national domain is under the administration of the Lands, Parks and Forests Branch of the Department of Mines and Resources. The Royal Canadian Mounted Police maintain law and order throughout Yukon and the Northwest Territories.

The Northwest Territories.—Developments in the mining industry, particularly in the Yellowknife district, accounted for much of the activity in the Northwest Territories in 1946. Although the wave of prospecting and staking that reached a peak in 1945 showed a decline, systematic examination of ground already staked was continued, and the development of promising properties planned. Actual gold production in the Territories increased, facilities for transportation were improved, and plans were made for the improvement of municipal and other services in Yellowknife Settlement and vicinity.

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* Prepared under the direction of R. A. Gibson, I.S.O., Director, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

An important development was the re-opening of the mill serving the Con-Rycon gold mines of Consolidated Mining and Smelting Company of Canada Limited, where gold production had been suspended since September, 1943. Milling was resumed in August, 1946, and total production to the end of the year was 9,480 oz. This figure, added to the 14,780 oz. produced by Negus Gold Mines Limited, brought the production total for 1946 to 24,260 oz., or approximately, three times as much gold as was produced in 1945. Resumption of gold production at the Thompson-Lundmark mine has been forecast for 1947. Milling was suspended at this property in September, 1943, but rehabilitation of the property, including work on the mill, has been under way for some time, in preparation for a resumption of operations.

One of the promising properties under development is that of Giant Yellowknife Gold Mines Limited, situated approximately three miles north of Yellowknife Settlement. Two shafts, approximately one mile apart, have been sunk to a depth of 500 ft., and lateral development is being carried on from both shafts, ore being stock-piled. Gold production at this property is anticipated by 1948. Shaft sinking operations are also proceeding at the properties of Discovery Yellowknife Gold Mines Limited; Sunset Yellowknife Gold Mines Limited; and Diversified Mining Interests (Canada) Limited. Development is also being carried on at the property of Philmore Yellowknife Gold Mines Limited, on Outpost Island, Great Slave Lake, prior to a resumption of gold production.

Exploration and staking have been extended for a distance of more than 200 miles beyond Yellowknife Settlement. During 1946, important discoveries were reported from the MacKay-Courageous Lake area, about 150 miles northeast of Yellowknife, and in the Regan Lake area, near the headwaters of Back River, more than 100 miles northeast of Courageous Lake. Diamond drilling, trenching, and other work is being carried on in other areas, including those adjacent to the Yellowknife River, Gordon Lake, Indin Lake, Ghost Lake, and Russell-Slemon Lakes. During 1946, mineral claims totalling 4,799 were recorded in the Yellowknife Mining District, and during the first three months of 1947 an additional 376 claims were registered.

Progress was made in the development of a new hydro-electric power project on the Snare River, approximately 90 miles north of Yellowknife Settlement, which has been undertaken by the Federal Government through the Dominion Water and Power Bureau to meet the power requirements of the Yellowknife Mining District. By January, 1947, the main power tunnel, 140 ft. in length, and a secondary tunnel had been excavated, one cofferdam constructed, and excavations leading to the main tunnel and to the site of the power-house completed. Erection of the power-house sub-structure is planned during 1947, and it is hoped to have the superstructure and power installations made during the summer of 1948 so that power may be available by autumn of that year. The new plant will supplement power furnished at present by a development on the Yellowknife River, near Prosperous Lake.

To meet the needs of a greatly increased population, additions to the townsite of Yellowknife were surveyed in 1945 and 1946. Provision has been made in the newly developed areas for water and sewer services, and these installations are planned for 1947. During 1946 a large number of buildings were constructed in the settlement and vicinity, including a new Government Administration building, a modern 40-room hotel, and more than 80 new dwellings. Among the buildings planned for erection in 1947 are a 40-bed hospital and a new combined public and high school.

The development of a modern airport at Long Lake, four miles from Yellowknife Settlement, is expected to result in improved air transport services. Surfacing of the two main landing strips is planned for 1947, and when completed the airport will be capable of accommodating large transport and passenger aircraft the year round. The extensive use of aircraft to service mining properties under examination and development has resulted in investigation of sites for landing strips at suitable places in the Yellowknife mining field.

Another important project undertaken to improve transportation to and from the Mackenzie District is the construction of an all-weather highway from railhead at Grimshaw, Alta., to Hay River Settlement on Great Slave Lake. The cost of this project is being shared by the Federal Government and the Provincial Government of Alberta. Work on the highway was commenced in 1946 and, at the end of the year, approximately 194 miles of clearing and 85 miles of grading had been completed. The work schedule calls for completion of the highway by 1947. The new road will assist in the movement of mining equipment and supplies from railhead to Great Slave Lake, over which freight can be transported to Yellowknife and other places in summer by barge and in winter by truck or tractor train when conditions are favourable.

The production of pitchblende concentrates was continued at the mine of Eldorado Mining and Refining (1944) Limited, at LaBine Point, Great Bear Lake. This property is one of the world's principal sources of radium and uranium, and has been operated by a Crown Company since January, 1944. During the year landing strips for wheel-equipped aircraft were constructed by the Company at Sawmill Bay, Great Bear Lake, southwest of the mine, and near St. Charles Rapids on Great Bear River to facilitate the transportation of supplies to, and concentrates from, the mine.

Production of petroleum products was continued by Imperial Oil Limited, at Norman Wells, in the lower Mackenzie Basin. During 1946, approximately 182,000 bbl. of crude petroleum were produced. The greater part of this production was processed at the Norman Wells refinery, and oil products, including gasoline and fuel oil, were shipped for consumption at the Eldorado mine and in the Yellowknife area.

Geological surveys were continued in the Territories during the year. Detailed investigations relating to radio-active minerals were carried on in the Camsell River area and along the east shore of Great Bear Lake. Reconnaissance surveys were also undertaken in the Yellowknife area in the vicinity of the Negus-Giant gold belt, and in the MacKay Lake and Indin Lake areas. Inspection of oil operations in the Norman field was continued, and an examination was made of exploratory drilling operations in the Hay River area.

The fur trade continued to be an important factor in the economy of the Territories. During the year ended June 30, 1945, a total catch of 258,931 pelts having a value of $1,743,710 was reported. The trapping of fine furs is the chief occupation of most of the native population and hunting and trapping in the Territories is restricted mainly to natives and to half-breeds living the life of natives.

A recent development has been the establishment of a service to protect forests and wild life in the Mackenzie district, with headquarters at Fort Smith. During 1946, progress was made in the development of this service, including the establishment of districts assigned to wardens for regular patrols. Orders were placed for fire-fighting equipment, including forest patrol boats, and delivery of some equipment was made during the year. Forests provide valuable cover for game and fur-bearing animals, and it is hoped that field investigations under way will determine the action required to restore to normal the wild life in the Mackenzie District.

The 1946 Eastern Arctic Patrol of medical centres, police detachments, radio stations, trading posts, and missions in the Canadian Eastern Arctic was carried out on R.M.S. *Nascopie* from Montreal, Que. Natives were examined at all ports of call by medical officers accompanying the patrol. These examinations included chest X-ray of approximately 1,500 Eskimos. Mail was distributed and accepted and supplies were delivered. Building material for the erection of a scientific station at Baker Lake in the Keewatin District was transported from Southampton Island to Churchill, from which point it was delivered by schooner to its destination. The erection of the station is planned for 1947.

Yukon Territory.—Increased activity in both placer and quartz areas featured mining operations in Yukon Territory during 1946. Gold production from placer workings showed a substantial increase over that for 1945. Prospecting was extended over a wide area and the development of a new quartz mining field was commenced in the vicinity of Victoria Creek, near Carmacks.

The total production of gold in the Territory for 1946 was 47,023 fine oz. valued at $1,728,095, as compared with a total of 31,721 fine oz. valued at $1,221,258 in 1945. The greater part of this production came from placer mining operations in the Dawson District. The total value of mineral production in Yukon Territory to the end of 1946 has been estimated at $242,799,469, of which gold accounted for $213,876,939 and silver $21,003,071.

The principal producers in the placer mining field were Yukon Consolidated Gold Corporation Limited, which operated six dredges in the Klondike area, and Clear Creek Placers Limited, which operated one dredge on Clear Creek, a tributary of the Stewart River. In addition, considerable gold was obtained from placer operations conducted on Shorty Creek in the Dezadeash Lake area, and on Burwash Creek, near Kluane Lake. Some gold was produced in the Mayo Mining District. Prospecting was also carried out in other areas, and at the close of 1946 a total length of 583 miles on various creeks and rivers was held under prospecting grants.

Quartz mining activity in the Territory was featured by a renewed interest in the Mayo Mining District. The Keno Hill Mining Company Limited, which, in 1945, acquired claims formerly owned by the Treadwell Yukon Corporation Limited, undertook considerable development work prior to commencing milling operations in 1947. Claims were opened up on Galena Hill, where a flotation mill at the Elsa mine is being rehabilitated. Operations also were undertaken on Keno Hill by the Yukon Northwest Exploration Limited.

In the Whitehorse Mining District, Northwest Exploration Company Limited, continued work on properties acquired in 1945, in the vicinity of Victoria Creek, where a sufficiently large body of ore was blocked out to warrant the formation of a new company to be known as Brown-McDade Mines Limited. A small landing field was developed during the year to facilitate the transportation of supplies, and plans were made for the erection of a mill. Drilling operations were continued by Hudson Bay Exploration and Development Company Limited, on a group of claims at the head of Log Jam Creek, a tributary of Swift River. This area is accessible from the Alaska Highway.

On Apr. 1, 1946, maintenance of the Alaska Highway passed from United States authority to the Northwest Highway System (Canadian Army). Owing to the limited accommodation available along the route, travel on the highway is restricted to maintenance personnel, prospectors, organized hunting parties, and others having business in the region or in Alaska. Control of traffic is supervised by the Royal Canadian Mounted Police.

Progress was made in the development of the experimental substation opened in 1945, by the Dominion Department of Agriculture on the Alaska Highway, approximately 100 miles west of Whitehorse. Field tests were conducted in 1946 on land prepared the previous year. Although the season was extremely dry, satisfactory results were obtained from grain crops. Garden crop trials were undertaken and also proved encouraging. A greenhouse erected during the year facilitated the production of tomatoes and cucumbers.

The fur trade continued to be a source of revenue for inhabitants of Yukon Territory, particularly the native population, and during the year ended June 30, 1945, a total catch of 87,292 pelts, valued at $669,217, was obtained.

Subsection 2.—Provincial Public Lands

In the Maritime Provinces and in Quebec, Ontario and British Columbia (except the Railway Belt and the Peace River Block), the public lands have been administered by the Provincial Governments since Confederation. Since the transfer by the Federal Government of the natural resources of the Prairie Provinces and of sections of British Columbia, public lands in all provinces have been under provincial administration. In Prince Edward Island, all of the land is alienated and there are no provincial public lands.

In certain of the provinces extensive areas have been set aside from provincial lands as parks and reserves. These provincial areas are dealt with in Chapter I, pp. 39-41.

Information regarding provincial public lands may be obtained from the following officials of the respective provinces: Minister of Lands and Forests, Halifax, N.S.; Deputy Minister of Lands and Mines, Fredericton, N.B.; Deputy Minister of Lands and Forests, Quebec, Que.; Deputy Minister of Lands and Forests, Toronto, Ont.; Director of Lands, Department of Mines and Natural Resources, Winnipeg, Man.; Director of Lands, Department of Natural Resources, Regina, Sask.; Director of Lands, Department of Lands and Mines, Edmonton, Alta.; Deputy Minister of Lands, Victoria, B.C.

Section 2.—Department of Public Works*

Since Confederation and before, the constructing department of the Federal Government has been known as the Department of Public Works. In 1879 the railways and canals were placed under the control of a new department, the building and maintenance of penitentiaries were transferred to the Department of Justice, the maintenance and construction of lighthouses to the Marine and Fisheries Department, and the smaller drill halls and armouries to the Department of National Defence. The work of the Department of Public Works is now divided into three principal branches, viz., the Engineering Branch, the Architect's Branch, and the Telegraph Branch.

Engineering.—The Engineering Branch conducts the construction and repair of wharves, piers, breakwaters, dams, weirs, bank and beach protection works; the improvement of harbours and rivers by dredging; the construction, operation, and maintenance of dredging plant and the construction, operation, and maintenance of graving or dry docks. The construction and maintenance of interprovincial bridges and approaches thereto, also the construction, operation, and maintenance of bridges with movable spans on certain highways; hydrographical and topographical surveys which are required for the preparation of plans, reports, and estimates; test borings for the purpose of ascertaining the nature of foundations; the testing of cements and materials of construction; the licensing of international and interprovincial ferries, and the control of works constructed in or over navigable waters by authority of the Navigable Waters Protection Act (R.S.C., 1927, c. 140).

Architecture.—The Architect's Branch constructs and maintains Government buildings, post offices, customs houses, examining warehouses, quarantine stations, immigration and experimental farm buildings, military hospitals, and telegraph offices. It also constructs armouries and drill halls and leases office accommodation as required for the various Departments.

Telegraphs.—The Telegraph Branch has control of the construction, operation, and maintenance of all Government-owned telegraph lines and cables. These lines are located in the provinces of Nova Scotia, New Brunswick, Quebec, Ontario, Saskatchewan, Alberta, British Columbia, and Yukon (see also p. 726).

Graving Docks.—The Department constructed five dry docks and is responsible for subsidies under the Dry Dock Subsidies Act, 1910 (9-10 Edw. VII, c. 17). A description of these docks is given in the Transportation Chapter, p. 693.

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* Revised by J. M. Somerville, Secretary, Department of Public Works, Ottawa.

Section 3.—The Indians and Eskimos of Canada

2.—Indian Population of Canada at the Decennial Censuses of 1871-1941

Province or Territory	1871[1]	1881[1]	1891[2]	1901	1911	1921	1931	1941
Prince Edward Island	323	281	314	258	248	235	233	258
Nova Scotia	1,666	2,125	2,076	1,629	1,915	2,048	2,191	2,063
New Brunswick	1,403	1,401	1,521	1,465	1,541	1,331	1,685	1,939
Quebec	6,988	7,515	13,361	10,142	9,993	11,566	12,312	11,863
Ontario	12,978	15,325	17,915	24,674	23,044	26,436	30,368	30,336
British Columbia	23,000	25,661	34,202	28,949	20,134	22,377	24,599	24,875
Manitoba	56,000	56,239	51,249	16,277	7,876	13,869	15,417	15,473
Saskatchewan				26,304	11,718	12,914	15,268	13,384
Alberta					11,630	14,557	15,258	12,565
Yukon				3,322	1,489	1,390	1,543	1,508
Northwest Territories				14,921	15,904	3,873[3]	4,046	4,052
Canada	**102,358**	**108,547**	**120,638**	**127,941**[4]	**105,492**	**110,596**	**122,920**	**118,316**

[1] Census figures in the organized provinces and estimates for the rest of Canada. [2] Racial origin not taken in 1891; the figures have been taken from the report of the Department of Indian Affairs of that year. [3] The decrease in the Indian population of the Northwest Territories is due to the extension of the boundaries of Quebec, Ontario and Manitoba in 1912. This also accounts for the increase in the 1921 Indian population of these provinces. [4] Includes 34,481 'half-breeds'.

3.—Indian Lands, by Classes and Provinces, as at Mar. 31, 1945

Province or Territory	Uncleared and Uncultivated	Cleared but Not Cultivated	Under Cultivation	Total Area of Reserves
	acres	acres	acres	acres
Prince Edward Island	1,370	200	97	1,667
Nova Scotia	19,040	532	215	19,787
New Brunswick	36,366	1,125	262	37,753
Quebec	161,409	15,437	6,529	183,375
Ontario	1,168,836	105,187	29,462	1,303,485
Manitoba	355,541	115,075	12,514	483,130
Saskatchewan	518,775	622,097	52,580	1,193,452
Alberta	553,785	800,201	49,865	1,403,851
British Columbia	548,946	247,288	35,851	832,085
Yukon and Northwest Territories	5,799	37	82	5,918
Canada	**3,369,867**	**1,907,179**	**187,457**	**5,464,503**

4.—Values and Sources of Income of Indians, by Provinces, 1946

Province or Territory	Income Received from—					Wages Earned	Total Income of Indians[1]
	Farm Products, including Hay	Beef Sold or Used for Food	Fishing	Hunting and Trapping	Other Income		
	$	$	$	$	$	$	$
Prince Edward Island	3,000	600	650	750	4,500	1,400	10,900
Nova Scotia	7,150	220	900	1,300	10,992	98,500	119,062
New Brunswick	4,450	900	4,400	3,100	29,820	72,800	115,470
Quebec	132,210	22,882	6,922	526,887	214,291	979,795	1,882,987
Ontario	295,340	56,910	342,933	960,085	1,046,934	1,771,000	4,473,202
Manitoba	245,648	42,840	141,640	260,575	230,301	153,600	1,074,604
Saskatchewan	527,903	124,174	37,258	115,038	528,417	429,191	1,761,981
Alberta	470,087	263,140	11,130	386,294	510,091	257,156	1,897,898
British Columbia	842,666	222,560	1,866,670	439,730	623,384	2,197,600	6,192,610
Northwest Territories	5,476	–	14,975	471,000	24,805	19,970	536,226
Totals, 1946	**2,533,930**	**734,226**	**2,427,478**	**3,164,759**	**3,223,537**	**5,981,012**	**18,064,942**

[1] Includes income received from timber and mining dues, from annuities earned as interest on Indian trust funds, and from money received from land rentals.

Eskimos.—Refer to p. 1133 of the 1946 Year Book. This information has undergone no change.

Section 4.—Department of the Secretary of State[*]

The Department of the Secretary of State was constituted in its present form in 1873, through the merging of the previously existing offices of the Secretaries of State for Canada and for the provinces. The Secretary of State is the official mouthpiece of the Government, as well as the medium of communication between the Federal and Provincial Governments, all correspondence between the Governments being conducted by him with the Lieutenant-Governors. He is also the custodian of the Great Seal of Canada and the Privy Seal as well as being the channel by which the general public may approach the Crown.

The Secretary of State is also the Registrar General, registering all proclamations, commissions, licences, warrants, writs and other instruments issued under the Great Seal and the Privy Seal. He is further charged with the administration of the Boards of Trade Act, the Companies Act, the Canada Temperance Act, the Copyright Act, the Naturalization Act, the Patent Act, the Trade Unions Act, the Ticket of Leave Act, the Unfair Competition Act (1932), the Bankruptcy Act, and with the collection and tabling of parliamentary returns. Other Acts and

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[*] Revised by E. H. Coleman, C.M.G., K.C., LL.D., Under Secretary of State, Department of the Secretary of State.

Regulations administered by the Secretary of State as a result of the declaration of war are: the Patents, Designs, Copyright and Trade Marks Emergency Order (1939), and the Revised Regulations Respecting Trading with the Enemy (1943). The Secretary of State deals with the organization and administration of the Office of the Custodian of Enemy Property (see the Foreign Trade Chapter of this volume, pp. 492-493). Statistics regarding patents and copyrights appear in Chapter XXII at pp. 765-767.

Charters of Incorporation.—Statistics of companies incorporated under the Companies Act are given in Table 5.

5.—Numbers and Capitalizations of Companies Incorporated Under the Dominion Companies Act and Amending Acts, Fiscal Years 1936-46

NOTE.—Statistics for the years 1900-25 will be found at p. 1061 of the 1938 Year Book and for 1926-35 at p. 934 of the 1942 edition. Capitalization includes consideration of the amounts of capital received on the issue of shares without nominal or par value.

Year	New Companies		Old Companies with—				Gross Increase in Capitalization	Net Increase in Capitalization
			Increased Capitalization		Decreased Capitalization			
	No.	Capitalization	No.	Amount	No.	Amount		
		$		$		$	$	$
1936	371	141,237,550	41	54,073,000	76	79,640,610	195,310,550	115,669,940
1937	410	130,767,280	72	143,597,766	105	123,837,999	274,365,046	150,527,047
1938	358	104,401,299	47	22,571,383	60	33,229,414	126,972,682	93,743,268
1939	317	116,819,350	65	38,160,031	55	56,213,867	154,979,381	98,765,514
1940	296	53,497,600	49	18,222,400	27	14,204,053	71,720,000	57,515,947
1941	293	53,247,600	55	25,321,900	27	14,204,053	78,569,500	64,365,447
1942	211	50,606,141	40	15,760,300	39	54,964,907	66,366,441	11,401,534
1943	205	51,630,000	35	56,198,739	29	7,728,436	107,828,739	100,100,303
1944	217	53,462,000	59	31,351,380	52	18,204,490	84,813,380	66,608,890
1945	412	56,719,900	51	108,411,400	20	10,680,250	165,131,300	154,451,050
1946	649	187,588,775	88	129,163,798	32	15,407,127	316,752,573	301,345,446

During the fiscal year 1946, Supplementary Letters Patent numbering 118 were granted for variation of corporate powers, changes of name, confirmation of compromises or arrangements with shareholders and for various other purposes. In addition to the companies with share capital, 49 corporations without share capital were granted Letters Patent under the provisions of Part II of The Companies Act, 1934.

Subsection 1.—Naturalization

Prior to Jan. 1, 1915, naturalization in Canada was only local in effect and such certificates were granted under the Naturalization Act, R.S.C., 1906, c. 77. Figures of naturalization under that Act are given at p. 594 of the 1919 Year Book. Although the "Imperial" Naturalization Act came into force on Jan. 1, 1915, the "local" Naturalization Act remained in effect until Dec. 31, 1917.

The "Imperial" Naturalization Act which came into force on Jan. 1, 1915, was known under the title of the Naturalization Act, 1914, until July 7, 1919, when it was repealed and the Naturalization Act, 1919, came into force. On July 1, 1920, the Naturalization Act, 1919, was repealed, and the Naturalization Act, 1914, was revived and amended under the title of the Naturalization Acts, 1914 and 1920. By an amendment passed by Parliament in 1923, the restriction was removed by which persons of enemy alien birth were ineligible to receive certificates of naturalization for a period of ten years after the termination of the War. All these Acts were consolidated in R.S.C., 1927, c. 138. Under this consolidation, any alien could apply for naturalization, but according to Sect. 4, Part II of the Act, the granting of the certificates of naturalization to the applicant was left entirely to the discretion of the Minister who could, without assigning any reason, give or withhold the certificate as he thought most conducive to the public good.

As and from Jan. 15, 1932, female British subjects, marrying aliens, retained British nationality unless they, by marriage, acquired their husbands' nationalities. The wives of aliens no longer became British subjects automatically through their husbands' naturalization; but were required to apply for a certificate to the Secretary of State (see p. 1169).

By an Order in Council under the War Measures Act, R.S.C., 1927, c. 206, dated July 9, 1942 (P.C. 5842) as amended by Order in Council dated Sept. 23, 1942 (P.C. 8499), effective Jan. 1, 1943, all aliens who were required to apply for naturalization by filing their applications through the Courts were required first to file declarations of intention. They were not qualified to file applications for naturalization under Sect. 4 of the Naturalization Act until one year after the date of filing the declarations of intention.

By the terms of Para. 1 of the Regulations laid down in Order in Council P.C. 5842 of July 9, 1942, as amended by P.C. 4309 of June 5, 1944, the Secretary of State was authorized to grant a certificate of naturalization to any alien serving outside Canada with the Naval, Military or Air Forces of Canada, and to any alien who had enlisted for general service with the Naval, Military or Air Forces of Canada, and who had served on Active Service in any of the said Forces for a period of not less than eighteen months, and was still serving on Active Service in any of the said Forces, provided the applicant had satisfied the Secretary of State, by the filing of such documents and evidence as may have been prescribed by the Secretary of State and the Minister of National Defence, that he was a fit and proper person to be naturalized in Canada as a British subject. No fee was payable on such certificates of naturalization.

Table 6 shows the number of naturalization certificates issued to single persons or heads of families under these Acts during the calendar years from 1943 to 1946. The total numbers of persons naturalized during the same years, including (except as stated above) the wives and minor children of those to whom naturalization certificates were issued, are shown in Table 7.

6.—Naturalization Certificates Issued in Canada, by Principal Nationalities, 1943-46

Nationality	1943	1944	1945	1946	Nationality	1943	1944	1945	1946
Albanian	3	3	2	4	Lithuanian	141	158	97	167
Argentinian	1	Nil	Nil	1	Luxemburger	2	3	1	5
Austrian	579	694	363	826	Mexican	Nil	1	Nil	2
Austro-Hungarian	7	3	Nil	Nil	Montenegrin	1	Nil	1	Nil
Belgian	190	256	106	137	Netherlander	230	290	160	245
Brazilian	Nil	Nil	1	1	Norwegian	396	586	265	423
Bulgarian	8	18	16	25	Palestinian	5	6	7	4
Chinese	2	14	6	23	Persian	Nil	2	Nil	Nil
Czechoslovak	652	953	593	752	Polish	3,002	3,603	1,642	2,608
Danish	374	503	241	326	Roumanian	126	271	383	602
Danziger	Nil	1	3	6	Russian	1,083	1,064	598	1,029
Egyptian	1	1	Nil	1	Spanish	3	12	8	4
Estonian	8	10	4	17	Swedish	343	511	193	379
Finnish	81	139	308	709	Swiss	160	189	95	167
French	114	120	51	115	Syrian	28	42	17	33
German	146	257	457	1,012	Turkish[1]	20	20	11	18
Greek	57	93	56	92	United States	1,337	1,427	789	1,226
Hungarian	92	191	359	661	Yugo-Slav (Serb-Croat-Slovene)	406	390	221	319
Icelandic	16	19	6	30					
Italian	227	310	411	745	All others	67	149	74	96
Japanese	1	Nil	Nil	2					
Latvian	24	36	4	20	**Totals**	**9,933**	**12,345**	**7,549**	**12,832**

[1] Includes also Syrian, Armenian, Greek, Bulgarian, Palestinian and Mesopotamian Turks.

7.—Persons Naturalized in Canada, by Principal Nationalities, 1943-46

Nationality	1943	1944	1945	1946	Nationality	1943	1944	1945	1946
Albanian	3	3	2	4	Lithuanian	172	169	107	187
Argentinian	1	Nil	Nil	1	Luxemburger	2	4	1	6
Austrian	754	886	477	1,025	Mexican	Nil	1	Nil	2
Austro-Hungarian	11	6	Nil	Nil	Montenegrin	1	Nil	1	Nil
Belgian	222	278	119	159	Netherlander	272	324	174	274
Brazilian	Nil	Nil	1	2	Norwegian	436	649	296	494
Bulgarian	9	18	16	28	Palestinian	7	8	9	5
Chinese	2	23	8	34	Persian	Nil	3	Nil	Nil
Czechoslovak	876	1,260	708	874	Polish	3,503	4,231	1,842	2,903
Danish	413	534	261	347	Roumanian	179	344	445	680
Danziger	Nil	1	3	7	Russian	1,426	1,369	819	1,315
Egyptian	1	1	Nil	2	Spanish	3	16	8	4
Estonian	9	11	4	17	Swedish	381	555	215	447
Finnish	103	157	331	746	Swiss	178	202	103	171
French	127	134	62	136	Syrian	36	53	21	40
German	163	315	509	1,083	Turkish[1]	26	23	13	22
Greek	60	98	62	103	United States	1,720	1,855	1,037	1,550
Hungarian	107	234	438	757	Yugo-Slav (Serb-Croat-Slovene)	507	464	252	344
Icelandic	18	20	8	37					
Italian	269	362	438	800	All others	83	181	98	118
Japanese	1	Nil	Nil	2					
Latvian	25	42	4	21	**Totals**	**12,106**	**14,834**	**8,892**	**14,747**

[1] Includes also Syrian, Armenian, Greek, Bulgarian, Palestinian and Mesopotamian Turks.

Persons naturalized under the Naturalization Act are entitled to all the political and other rights, powers and privileges, and are subject to all the obligations, duties and liabilities of a natural-born British subject, and from the date of naturalization have the same status as a natural-born British subject.

Table 8 gives an analysis of the non-British and non-French naturalized and alien population of Canada for the two censuses, 1931 and 1941.

8.—Naturalized and Alien Population by Racial Origin, 1931 and 1941

Racial Origin	1931		1941	
	Naturalized	Alien	Naturalized	Alien
	No.	No.	No.	No.
Austrian	11,420	11,307	10,824	3,890
Belgian	8,050	8,290	9,925	3,853
Czech and Slovak	5,175	16,841	15,037	10,935
Finnish	9,712	21,918	13,076	11,674
German	79,249	65,416	83,683	24,949
Hungarian	6,361	23,001	20,834	10,453
Italian	28,340	17,344	34,207	7,735
Jewish	57,278	27,373	66,105	11,400
Netherlander	14,499	15,381	24,192	7,611
Polish	28,773	48,744	48,815	20,848
Roumanian	6,452	7,944	6,910	2,418
Russian	17,937	22,790	20,897	10,453
Scandinavian	76,788	51,597	79,998	22,895
Ukrainian	54,914	43,015	78,061	28,069
Other European	9,143	18,220	19,098	9,248
Chinese	2,173	39,038	2,055	25,878
Japanese	4,353	7,754	3,159	5,978
Other Asiatics	4,347	1,601	4,549	754
Totals	**424,964**	**447,574**	**541,425**	**219,041**

Subsection 2.—Citizenship

On Jan. 1, 1947, there came into force the Canadian Citizenship Act. By this legislation all previous Naturalization Acts in force in Canada were repealed; this included the Canadian Nationals Act, c. 21, R.S.C. 1927. The purpose of the Act is to give a clear and simple definition of Canadian citizenship and to provide an underlying community of status for all the people of Canada that will help to bind them together as Canadians. Heretofore, the only definition of Canadian citizenship was to be found in the Immigration Act, and that was a limited one, for it defined citizenship only for purposes of immigration. Now, for the first time in Canada's history, there is a clear definition of Canadian citizenship in the sense of being nationals of Canada.

Natural-born Canadian Citizens.—The Canadian Citizenship Act, 1947, defines clearly the status of natural born-Canadians before and after the coming into force of the Act. It covers those persons born in, and outside Canada. Provision is also made for the citizenship of a Canadian-born person born abroad, out of wedlock. Such a person is a Canadian citizen if his mother was born in Canada, or on a Canadian ship, and had not become an alien. Heretofore, a person in that category had no claim to Canadian citizenship. A person born abroad of a Canadian parent before the commencement of the Canadian Citizenship Act, 1947, is not deemed to have the status of a Canadian citizen, unless he has been lawfully admitted to Canada for permanent residence, or is a minor. A person born abroad of a Canadian parent after the new Act came into force is a Canadian citizen, but there is a proviso that his birth must be registered at a Canadian consulate, or with the Secretary of State of Canada, within two years after its occurrence, or within such extended period as may be authorized in special cases by the Minister, if his parents wish him to retain Canadian citizenship. In addition, a Canadian born outside Canada, either before or after the commencement of this Act, ceases to be a Canadian citizen unless within one year after he reaches the age of 21, he files a declaration of retention of Canadian citizenship, and, if he is also a citizen of a country other than Canada (dual nationality), he divests himself of such nationality by declaration of alienage, or otherwise. In special cases, the Minister may extend the time during which any such person may assert his Canadian citizenship and divest himself of the other nationality or citizenship. One of the important features of the new Act, with respect to which the procedure is set out in the Regulations, is that which permits a natural-born Canadian citizen to apply for a certificate of Canadian citizenship. Many Canadians travel abroad these days, and many of them reside abroad for a number of years. They, in particular, may wish to have certificates identifying them as Canadian citizens. But any Canadian, whether he intends to travel or stay at home, may apply to the Secretary of State of Canada for a certificate of Canadian citizenship and obtain one upon the payment of a fee of $1. This is something quite new, and a distinct departure from the former procedure. Under previous Acts, there was no provision for the issue of certificates to Canadian citizens or British subjects, as their birth certificates were deemed to be sufficient evidence of their status.

British Subjects and Canadian Citizens.—British subjects, as distinct from Canadian citizens, have their status defined under the new Act. It should be explained that, under previous Acts, persons born or naturalized within the British Commonwealth of Nations were officially designated as British subjects. Officially, a Canadian could not describe himself as a Canadian citizen; the term was 'British subject'. This was one of the principal reasons why the Act was passed, viz., to permit a Canadian to call himself a *Canadian.* The authority for this procedure is found in Sect. 3 of the new Act, which reads:

> "Section 3. Where a person is required to state or declare his national status, any person who is a Canadian citizen under this Act shall state or declare himself to be a Canadian citizen and his statement or declaration to that effect shall be a good and sufficient compliance with such requirement."

Although the designation, British subject, will be dropped in future, insofar as it applies to Canadians, this does not mean that a Canadian loses the status of a British subject. Sect. 26 of the new Act reads that a Canadian citizen is a British subject, and Sect. 28 reads that a person who has acquired the status of a British subject by birth or naturalization under the laws of any country of the British Commonwealth, other than Canada, to which he was subject at the time of his birth or naturalization, shall be recognized in Canada as a British subject.

It should be emphasized that the rights of non-Canadian British subjects have not been changed or infringed upon by the new Act. They will continue to have the right to vote, to obtain old age pensions, and the right of permanent entry after five years' residence in Canada. But they are not Canadian citizens until they have established a residence of five years in Canada. Those who have that residence at the commencement of the Act are Canadian citizens, and those who attain it after that date must apply for certificates of citizenship before being granted the status of Canadian citizens.

However, any British subject, whether or not he is a Canadian citizen, may apply for a certificate of citizenship. The British subject who is not a Canadian citizen may apply for a certificate direct to the Secretary of State of Canada, or, alternatively, he may apply to the court of the district in which he resides. If the Secretary of State is in any doubt as to the qualifications of the person who applies direct to him, he may refer the case to the court for consideration.

Canadian Citizens Other Than Natural-born.—Under Sect. 9, of the Act, naturalized persons, and British subjects, who had Canadian domicile before the commencement of this Act, are Canadian citizens and may obtain a Canadian Citizenship Certificate upon payment of $1. Sect. 9 also defines the status as Canadian citizens of women and children, other than natural-born, and the manner in which they would have acquired Canadian citizenship.

Status and Procedure of Non-Canadians to Canadian Citizenship.—In Sect. 10 (1) of the Act will be found the provisions which apply to the granting of citizenship to a person who is not a Canadian citizen. Although the word 'alien' is not used in the sub-section, nevertheless its principal purpose is to define the circumstances under which an alien may apply for and be granted a certificate of citizenship. The application is made to a court, and whereas the alien *must* apply to the court, the British subject has the option of applying to the court or direct to the Secretary of State. Furthermore, the alien must commence his application by filing a Declaration of Intention, which the British subject is not required to do.

The applicant for a certificate of citizenship may file his application at any time after his admission to Canada, and after he has attained the age of 18 years, in the form of a Declaration of Intention in the office of the clerk of the court of the district in which he resides. He must then wait not less than one year before filing with the court his application for a decision that he is qualified for citizenship. In any case, when he files his final application, he must satisfy the court that he has had a residence of one year in Canada immediately prior to the date of filing the application, and a further period of four years in Canada during the six years immediately preceding the date of the application, making a total residence of five years. In the case of an applicant who has served outside of Canada in the Armed Forces of Canada during time of war, or where the applicant is the wife of and resides in Canada with a Canadian citizen, a residence of only one year immediately preceding the date of the application is required.

In addition to the requirements of residence the applicant must satisfy the judge that he has been lawfully admitted to Canada for permanent residence; that he is of good character; that he has an adequate knowledge of English or French (knowledge of language is not necessary if he has resided continuously in Canada for more than 20 years—the 20 year clause is new); that he has an adequate knowledge of the responsibilities of Canadian citizenship, and that he intends, if his application is granted, either to reside permanently in Canada or to enter or continue in the public service of Canada or of a province thereof.

When the judge has given his decision, the papers and the decision are forwarded to the Secretary of State of Canada. He may grant the certificate of citizenship or, if he is in doubt whether the certificate should be granted, refer the application to the court for a rehearing. When a certificate is granted, it is forwarded to the clerk of the court, who then notifies the applicant to appear in court for the purpose of taking the oath of allegiance and declaration of renunciation of foreign allegiance, and receiving his certificate of citizenship.

Status of Married Women.—One of the important changes in the new Act is the citizenship emancipation of married women. Hitherto, an alien woman marrying a British subject became a British subject. Contrariwise, the woman of British nationality who married an alien, and acquired his nationality upon marriage, ceased to be a British subject. In fact, prior to 1932, a woman of British nationality who married an alien lost British nationality regardless of whether or not she acquired her husband's nationality. Under the new law, all this is changed. A Canadian woman does not lose Canadian citizenship upon marriage to an alien, and an alien woman who marries a Canadian does not, by reason of the marriage, become a Canadian citizen. In the former case, if she has acquired her husband's nationality, the married woman may divest herself of Canadian citizenship by filing with the Secretary of State of Canada a declaration of alienage and she shall thereupon cease to be a Canadian citizen. In the latter case, an alien woman must apply to the court for a certificate of citizenship. The only concession is that a residence of only one year in Canada is required.

In the past, married women were classed with minors, lunatics, and idiots as persons under disability. They could not become naturalized or control their national status as independent persons, except in very special circumstances. These disabilities have been removed, and under the new Act married women have equal status with men.

Status of Minors, Foundlings, Posthumous Births, etc.—Under Sect. 19 (3) of the Act, a certificate of citizenship may be granted to a minor child of a person to whom a certificate of citizenship is, or has been, granted under the Act, on the application of that person if the person is the responsible parent of the child, if the child was born before the date of the grant of the certificate and has been lawfully admitted to Canada for permanent residence. Under Sect. 11 (b), the Secretary of State, may, in his discretion, grant a certificate to a minor in any special case whether or not the conditions of the Act have been complied with. For the first time, a Canadian Act on nationality or citizenship defines the status of a deserted infant. Under previous Acts there was no mention of the status of a child left on somebody's doorstep. Under the new Act, it is provided that every foundling, who is or was first found as a deserted infant in Canada, shall, until the contrary is proved, be deemed to have been born in Canada. Another new provision in the Act, which did not appear in previous Acts, is the case of a child born after the death of his father. For purposes of definition of natural-born Canadian citizen, the child shall be deemed to have been born immediately before the death of the father. Under Sect 11 (a) of the Act, a certificate may be granted for the purpose of removing any doubts as to whether the person to whom it is granted is a Canadian citizen, and it is specifically provided that the granting of the certificate shall not be deemed to establish that the person to whom it is granted was not previously a Canadian citizen.

Citizenship of Persons Naturalized Locally Prior to 1914.—Persons who were naturalized locally in Canada prior to the passing of the Naturalization Act of 1914, were permitted, under the various Imperial Acts which were in force from 1914 to 1946, to exchange their local naturalization for Imperial certificates. This provision has been carried forward in the Canadian Citizenship Act, so that these persons, and particularly their children who were naturalized with them but who have no certificates to identify them as citizens, may apply for and obtain certificates of Canadian citizenship upon payment of a fee of $1.

Protection of Status Prior to the Canadian Citizenship Act.—Section 46 of the Act provides that notwithstanding the repeal of the Naturalization Act and the Canadian Nationals Act, the Canadian Citizenship Act is not to be construed or interpreted as depriving any person who is a Canadian national, a British subject or an alien as defined in the said Acts, or in any other law in force in Canada, of the national status he possesses at the time of the coming into force of this Act.

Loss of Canadian Citizenship.—A Canadian citizen who, when outside of Canada and not under a disability, by any voluntary and formal act, other than marriage, acquires the nationality or citizenship of a country, other than Canada, shall cease to be a Canadian citizen. This is the usual way in which Canadian citizenship is lost. There are other causes, such as service in the Armed Forces of a country when it is at war with Canada; a minor child who acquires a foreign citizenship with his responsible parent; or a woman who acquires her alien husband's nationality and files a declaration of alienage. The minor child who loses Canadian citizenship through his parent, may, within one year of attaining his twenty-first year, file a declaration of retention of Canadian citizenship, and he shall, thereupon, again become a Canadian citizen.

A Canadian citizen, other than natural-born or one who has served in the Armed Forces of Canada in time of war, ceases to be a Canadian citizen after a residence of at least six consecutive years outside Canada, except in specific cases wherein the principle of maintenance of some connection with Canada is proved. There is authority, however, to extend the period of residence outside Canada for more than six years, by registration with a consulate and the issue of a certificate of extension.

Revocation of Citizenship.—The revocation procedure which obtained under the Naturalization Act has been carried forward into the new Act. This provides for the establishment of a revocation Commission to inquire into and report upon the proposed revocation of certificates of citizenship. Revocation can take place only by Order of the Governor in Council, upon recommendation of the Secretary of State. Revocation proceedings may be instituted on the grounds of residence outside of Canada for not less than six years; trading with the enemy during time of war; false representation or fraud, or the concealment of material circumstances at the time of naturalization; disaffection or disloyalty to His Majesty, whilst out of Canada or, if in Canada, the naturalized citizen has been convicted of treason or sedition by a competent court.

Where a person ceases to be a Canadian citizen or a British subject under the circumstances outlined in the preceding paragraph, the citizenship of the spouse and minor children of that person shall not be affected unless, in the case of a wife, she became a British subject (legislation prior to this Act), by reason only of her marriage to the said person, or the said person is the responsible parent of a child. In such case it may be directed that the wife and children shall cease to be Canadian citizens or British subjects, as the case may be. The wife of a person who has ceased to be a Canadian citizen or a British subject may, within six months of the date of revocation of her husband's certificate, make a declaration renouncing her Canadian citizenship and thereupon any minor children of her husband and herself shall cease to be Canadian citizens or British subjects, as the case may be.

Where a person ceases to be a Canadian citizen or a British subject, he shall be regarded as having the nationality or citizenship which he had before he became a Canadian citizen or a British subject.

The Oath of Allegiance.—In conformity with the new conception of Canadian citizenship as defined in the Act, the form of oath of allegiance has been changed. Under the Naturalization Act it read as follows:

> "I (AB) swear by Almighty God that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law. So help me God."

Under the new Act, the oath has been altered to read:

> "I (AB) swear that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law, and that I will faithfully observe the laws of Canada and fulfil my duties as a Canadian citizen. So help me God."

Canadian Citizenship Ceremonies.—One of the significant innovations in the new Act is the ceremonies attendant upon the presentation of certificates of citizenship at special sittings of the courts. Machinery has been set up by which the courts across the country will be given every assistance possible in the arrangement of ceremonies in connection with the presentation of certificates of citizenship.

It is planned, also, to provide the newcomer to Canada with special facilities for training and education in the fundamentals of citizenship and a manual on Canadian citizenship will be issued to the alien when he files his Declaration of Intention.

Section 5.—The Civil Service of Canada

In the largest sense, the Federal Civil Service comprises all servants of the Crown, other than holders of political or judicial office, who are employed in a civil capacity and whose remuneration is paid wholly and directly from moneys voted by Parliament. Collectively, they form the staffs of the various Departments, Commissions, Boards, Bureaus, and other agencies of the Federal Government. Nearly every category of occupation is represented in the Civil Service, and personnel are further differentiated in terms of the several authorities under which they derive their appointments. Some few are appointed by either or both Houses of Parliament directly, a considerable number by departments and other agencies in accordance with the provisions of certain statutes, generally with executive approval of the Governor in Council, and the remainder—by far the majority—are selected and appointed by the Civil Service Commission.

As the central personnel agency of the Civil Service, the Civil Service Commission is the custodian of the merit principle in respect to both initial appointments and promotions. The steps by which the Commission, in its present form, came to be constituted is the record of Civil Service reform in Canada which began a year after Confederation and culminated in the passing of the Civil Service Act of 1918. Successive Royal Commissions deliberated on the problem of creating an effective and efficient working force and from their findings and recommendations emerged the concept of a quasi-judicial body, with a large measure of autonomy and having jurisdiction over nearly the whole of the public service. In the past 28 years more than 1,000,000 applicants for Civil Service posts have been examined by the Commission.

Provision was made in the Civil Service Act for the classifying of positions in the public service. A system of position-classification accordingly was instituted in 1919 and all positions with like duties and responsibilities were classified alike and remunerated equally. Through the years the original classification has been extensively revised, many new classes added and others discontinued as the organizational structure and administrative program and techniques of Government Departments have evolved. The determination of rates of compensation for each class is a continuing responsibility of the Commission and salary and wage surveys are conducted constantly. Position-classification is the mainspring in the Commission's primary function of recruitment involving, as it does, the fixing of standards of qualification for each class of position.

The instrument of recruitment is the open competitive examination. Examinations are held periodically as the personnel requirements of the public service dictate. Positions located throughout the country are treated in this respect in the same manner as positions at Ottawa, but applicants for local positions must be bona fide residents of the locality in each case, whereas anyone is entitled to apply for Ottawa positions. Competitive examinations are announced through posters displayed on the public notice boards of post offices, offices of the National Employment Service, public libraries and elsewhere.

The relative capacities of applicants are measured by objective tests designed and administered by the Commission. The nature of the test varies with the class of position and it may be of the written or oral type, or a combination of the two. For certain classes of positions ratings are based entirely on the education and experience of applicants as given on their application forms.

The names of persons successful in Civil Service examinations, arranged in order of rank, are recorded on "eligible lists". These lists are formally announced by publication in the *Canada Gazette* and each candidate—successful or unsuccessful—is advised individually of his standing. As required, appointments are made from eligible lists, which remain valid for one year.

Promotions among the personnel of Departments are similarly made through competitive examinations which are held as vacancies occur. It is a prime object of the Civil Service Act to create a career service and the system of position-classification is particularly suitable to the advancement of employees by promotion. Promotions, however, are limited by law to the ranks of the permanent Civil Service, which, at present, is a small proportion of the total. The preponderance of temporary staff is a legacy of the war period when few permanent appointments were made. This condition is gradually being changed as wartime units are liquidated and the structure of post-war administration emerges.

The War was a period of unprecedented activity for the Civil Service Commission. Up to that time the number of new appointments each year was less than 6,000. During the six years of war one-quarter of a million appointments were made. Staff turnover was a persistent problem and accounted for about 70 p.c. of that number. Salaries and appointments were controlled during the War by a special set of regulations authorized by various Orders in Council, chiefly P.C. 1/1569 and 32/1905 of Apr. 19, and May 10, 1940.

With the termination of hostilities the public service moved into the rehabilitation and reconstruction phase of its work. Large staffs were required to be recruited for departments administering treatment and benefits for veterans, reconstruction programs and new social legislation. Competitive examinations qualifying for regular and continuous employment had been suspended during the War in the interest of members of the Armed Services who were precluded from applying. An examination program had, therefore, to be instituted for scores of classes of positions.

The statutory veterans' preference which had existed for veterans of the War of 1914-18 was extended to the new veterans and it has proved to be a major factor in occupational rehabilitation. During the year 1946 alone, 26,000 veterans were appointed to Civil Service posts across the country.

Since the close of the War, salary controls have been progressively relaxed, and the Commission has recommended upward revisions in salary for certain general classes and for particular positions the duties of which had substantially increased during the preceding six years.

Systematic in-service training of departmental staffs is a comparatively recent development seeking to increase the general efficiency of the Service. The Commission has promoted the adoption of broadly based training programs and, during the war period, in collaboration with the Canadian Vocational Training Division of the Department of Labour, conducted a series of courses. The results have proved eminently satisfactory and training is being extended month by month into new fields of work.

Civil Service Statistics.*—Since April, 1924, a monthly return of personnel and salaries has been made by each Department of the Government to the Dominion Bureau of Statistics, according to a plan that ensures comparability between Departments and continuity in point of time. The institution of this system was preceded by an investigation covering all years following 1912.

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* Revised in the Public Finance Division, Dominion Bureau of Statistics.

From 1914 to 1920, the number of employees increased very rapidly, as a result of the extension of the functions of government and of the imposition of new taxes which necessitated additional officials as collectors. New services, such as the Department of Pensions and National Health and the Soldier Settlement Board were also created during this period. In January, 1920, 47,133 persons were employed; this number was the highest reached prior to January, 1940, when employees numbered 49,739.

Between March, 1939, and March, 1946, there was an increase of 74,451 in the total number of permanent and temporary employees. The bulk of this wartime increase was accounted for as follows: Department of National Defence, 23·9 p.c.; new wartime Departments and Boards (Reconstruction and Supply, National Film Board, Canadian Information Service, Wartime Prices and Trade Board) 11·1 p.c.; Unemployment Insurance Commission, 11·4 p.c. and 15·9 p.c. in Veterans Affairs and Soldier Settlement and Veterans' Land Act Departments combined.

Despite the large wartime increase in the total Civil Service employment, the number of permanent employees was less in March, 1946, than in March, 1939. The number of temporary employees, however, increased steadily during the war years. Consequently, in March, 1946, temporary employees represented 74·2 p.c. of the total as compared with 30·3 p.c. of the total in March, 1939, and 34·5 p.c. of the total in March, 1925, the first year for which these statistics were published.

The following sequence of tables is condensed from a recently published historical series covering the years 1925 to 1946. Table **9** gives the total numbers and percentages of permanent and temporary Civil Service employees in the month of March over the period. Table **10** gives comparable information regarding salaries and wages paid during each of the fiscal years of the period. Tables **11** and **12** give parallel data to those shown in Tables **9** and **10** but limited to the permanent and temporary employees employed at departmental headquarters. Tables **13** and **14** give index numbers of permanent and temporary employees and of wages paid to them for the same years of the series. Table **15** gives detailed information of employees and expenditures by Departments and Branches for the months of March 1945 and 1946.

9.—Numbers and Percentages of Permanent and Temporary Civil Service Employees, Months of March, 1937-46

NOTE.—Figures for the years 1925-36 will be found at p. 1141 of the 1946 Year Book.

Month of March—	Permanent		Temporary		Total
	Total	P.C. of Total	Total	P.C. of Total	
	No.		No.		No.
1937	30,678	71·6	12,158	28·4	42,836
1938	32,308	73·2	11,835	26·8	44,143
1939	32,132	69·7	13,974	30·3	46,106
1940	30,948	62·2	18,791	37·8	49,739
1941	30,149	45·0	36,777	55·0	66,926
1942	29,524	35·2	54,257	64·8	83,781
1943	28,708	27·6	75,347	72·4	104,055
1944	29,343	26·0	83,315	74·0	112,658
1945	30,240	26·1	85,668	73·9	115,908
1946	31,088	25·8	89,469	74·2	120,557

10.—Salaries and Wages and Percentages of Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1925-36 will be found at p. 1141 of the 1946 Year Book.

Year ended Mar. 31—	Permanent		Temporary		Total
	Total	P.C. of Total	Total	P.C. of Total	
	$'000		$'000		$'000
1937	51,335	82·0	11,243	18·0	62,578
1938	55,292	82·7	11,588	17·3	66,880
1939	56,264	80·8	13,357	19·2	69,621
1940	57,154	78·1	16,044	21·9	73,198
1941	56,108	66·0	28,857	34·0	84,965
1942	57,609	53·1	50,815	46·9	108,424
1943	58,747	41·5	82,955	58·5	141,702
1944	60,358	35·9	107,614	64·1	167,972
1945	64,189	35·6	115,959	64·4	180,148
1946	66,440	34·8	124,388	65·2	190,828

11.—Numbers and Percentages of Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Months of March, 1937-46

NOTE.—Figures for the years 1925-36 will be found at p. 1142 of the 1946 Year Book.

Month of March—	Permanent				Temporary				Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	No.				No.				No.
1937	7,386	63·2	24·1	17·2	4,305	36·8	35·4	10·0	11,691
1938	7,731	66·2	23·9	17·5	3,941	33·8	33·3	8·9	11,672
1939	7,564	63·8	23·5	16·4	4,284	36·2	30·7	9·3	11,848
1940	7,507	53·5	24·3	15·1	6,513	46·5	34·7	13·1	14,020
1941	7,419	37·9	24·6	11·1	12,174	62·1	33·1	18·2	19,593
1942	7,221	26·9	24·5	8·6	19,614	73·1	36·2	23·4	26,835
1943	6,829	21·4	23·8	6·6	25,108	78·6	33·3	24·1	31,937
1944	6,765	20·3	23·1	6·0	26,564	79·7	31·9	23·6	33,329
1945	6,777	19·5	22·4	5·8	27,963	80·5	32·6	24·1	34,740
1946	6,772	20·2	21·8	5·6	26,835	79·8	30·0	22·3	33,607

12.—Salaries and Wages and Percentages of Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1925-36 will be found at p. 1142 of the 1946 Year Book.

Year ended Mar. 31—	Permanent				Temporary				Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	$'000				$'000				$'000
1937	13,932	77·0	27·1	22·3	4,151	23·0	36·9	6·6	18,083
1938	15,008	79·4	27·1	22·4	3,890	20·6	33·6	5·8	18,898
1939	15,175	77·7	27·0	21·8	4,347	22·3	32·5	6·2	19,522
1940	15,227	73·5	26·6	20·8	5,492	26·5	34·2	7·5	20,719
1941	15,318	58·6	27·3	18·0	10,843	41·4	37·6	12·8	26,161
1942	15,589	46·6	27·1	14·4	17,882	53·4	35·2	16·5	33,471
1943	15,724	34·9	26·8	11·1	29,292	65·1	35·3	20·7	45,016
1944	15,910	31·0	26·4	9·5	35,368	69·0	32·9	21·1	51,278
1945	16,036	29·5	25·0	8·9	38,320	70·5	33·0	21·3	54,356
1946	16,333	29·3	24·6	8·6	39,366	70·7	31·6	20·6	55,699

13.—Index Numbers of Permanent and Temporary Civil Service Employees, Months of March, 1937-46

NOTE.—Figures for the years 1925-36 will be found at p. 1143 of the 1946 Year Book.

(March 1925=100)

Month of March—	Employed at Departmental Headquarters			Employed Other than at Departmental Headquarters			Totals		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1937	116	114	119	108	122	80	110	120	91
1938	116	119	109	113	129	80	113	127	88
1939	117	117	119	119	129	99	118	126	104
1940	139	116	180	124	123	125	128	121	140
1941	194	115	337	164	119	251	172	118	274
1942	266	111	543	197	117	353	215	116	404
1943	316	105	695	250	115	512	267	112	561
1944	330	104	735	275	119	579	289	115	621
1945	344	105	774	281	123	588	298	118	638
1946	333	105	743	301	128	639	310	122	667

14.—Index Numbers of Total Salaries and Wages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1937-46

NOTE.—Figures for the years 1925-36 will be found at p. 1143 of the 1946 Year Book.

(Year ended Mar. 31, 1925=100)

Year ended Mar. 31—	Employed at Departmental Headquarters			Employed Other than at Departmental Headquarters			Totals		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1937	114	117	107	109	129	59	110	126	70
1938	120	126	100	117	139	64	118	135	73
1939	123	127	112	122	142	75	123	138	84
1940	131	128	141	128	145	87	129	140	101
1941	165	128	279	143	141	149	150	137	181
1942	212	131	460	183	145	273	191	141	318
1943	285	132	754	236	149	444	249	144	520
1944	324	133	910	285	154	598	296	148	674
1945	343	134	986	307	166	643	317	157	726
1946	352	137	1,013	330	173	704	336	163	779

15.—Civil Service Employees and Total Expenditures on Salaries, Wages and Bonus Allowances, by Departments and Principal Branches, March, 1945, and March, 1946.

NOTE.—Dashes in this table indicate that no information is available for the corresponding stub items. The number of persons in the "non-enumerated classes" is not included in this table, but their compensation is included under "Expenditure".

Department and Branch	March, 1945		March, 1946	
	Employees	Expenditure	Employees	Expenditure
	No.	$	No.	$
Agriculture—				
Departmental Administration	101	15,650	111	17,501
Marketing Service	638	111,161	726	120,925
Production Service	1,070	179,318	1,197	218,791
Experimental Farms	467	131,703	516	176,099
Science Service	514	97,246	585	110,700
Prairie Farm Rehabilitation	176	50,662	194	71,130
Prairie Farm Assistance Act	93	20,037	66	45,523
Special War Services	134	20,799	130	25,903
Agricultural Prices Support Act	2	820	10	3,300
Totals, Agriculture	3,195	627,396	3,535	789,872

15.—Civil Service Employees and Total Expenditures on Salaries, Wages and Bonus Allowances, by Departments and Principal Branches, March, 1945, and March, 1946—continued.

Department and Branch	March, 1945		March, 1946	
	Employees	Expenditure	Employees	Expenditure
	No.	$	No.	$
Auditor General	263	42,308	247	41,183
Chief Electoral Officer	12	2,375	12	2,506
Civil Service Commission	560	71,942	684	96,448
External Affairs—				
Prime Minister's Office	30	6,796[1]	29	5,647[1]
Administrative	203	34,297	231	38,453
Passport Offices	27	3,029	57	5,658
P.I.C.A.O., Montreal[2]	-	-	2	1,133
High Commissioner's Office, London, England	66	12,086[1]	76	16,605[1]
High Commissioner's Office, Canberra, Australia	9	2,265[1]	10	2,345[1]
High Commissioner's Office, Wellington, N.Z.	4	1,948[1]	5	2,042[1]
High Commissioner's Office, Dublin, Ireland	6	2,225[1]	8	2,448[1]
High Commissioner's Office, Pretoria, South Africa	4	3,772[1]	5	1,767[1]
High Commissioner's Office, St. John's, Nfld	6	2,118[1]	6	2,307[1]
Canadian Embassy, Rio de Janeiro, Brazil	11	4,394[1]	12	4,717[1]
Canadian Embassy, Washington, U.S.A.	30	9,511[1]	39	11,889[1]
Canadian Embassy, Mexico City, Mexico	10	5,579[1]	15	4,906[1]
Canadian Embassy, Moscow, Russia	12	3,820	15	4,766[1]
Canadian Embassy, Santiago, Chile	7	3,094[1]	9	1,732[1]
Canadian Embassy, Paris, France	19	6,358[1]	33	10,363[1]
Canadian Embassy, Chungking, China	12	1,993	16	5,681
Canadian Embassy, Lima, Peru	8	3,505[1]	9	3,326[1]
Canadian Embassy, Brussels, Belgium	10	3,759[1]	16	5,010[1]
Canadian Embassy, Buenos Aires, Argentina	4	1,464[1]	10	4,473[1]
Canadian Embassy, Athens, Greece	-	-	11	1,999
Canadian Legation, Allied Governments in United Kingdom	8	3,351[1]	-	-
Canadian Legation, Havana, Cuba	1	430	7	3,669[1]
Canadian Legation, The Netherlands	-	-	10	3,648[1]
Canadian Legation, Oslo, Norway	-	-	6	3,384[1]
Consular Services, New York, U.S.A.	9	3,378[1]	10	3,950[1]
Consular Services, Greenland	1	333	1	292[1]
Consular Services, Lisbon, Portugal	-	-	1	257
Consular Services, Portland, U.S.A.	-	-	1	252
Mission, Germany	-	-	-	1,062[3]
Totals, External Affairs	497	119,505	650	153,781
Finance—				
Main Department	781	94,565	826	94,777
Comptroller of Treasury	6,569	847,096	8,243	1,064,666
Royal Canadian Mint	161	26,464	286	40,800
Tariff Board	16	3,910	13	3,412
Wartime Prices and Trade Board	5,245	778,734	5,492	781,220
Totals, Finance	12,772	1,750,769	14,860	1,984,875
Fisheries	374	91,426	361	97,191
Governor General's Secretary[4]	10	2,524	10	2,244
House of Commons	474	52,440	573	68,851
Insurance	49	12,136	53	11,806
International Joint Commission	5	2,013	5	2,013
Justice—				
Main Department	55	11,591	61	12,805
Clemency Branch	14	2,477	12	2,327
Purchasing Agent's Office	7	1,011	7	907
Penitentiaries	923	139,507	988	154,635
Supreme Court	23	4,408	23	4,478
Exchequer Court	10	2,089	11	2,060
Combines Investigation	-	-	11	2,705
Totals, Justice	1,032	161,083	1,113	179,917

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[1] Includes living allowances. [2] Provisional International Civil Aviation Organization. [3] Living allowances only; no number included as salary paid by another Department. [4] Salaries of A.D.C.'s are included, but not their number.

15.—Civil Service Employees and Total Expenditures on Salaries, Wages and Bonus Allowances, by Departments and Principal Branches, March, 1945, and March, 1946—continued.

Department and Branch	March 1945		March, 1946	
	Employees	Expenditure	Employees	Expenditure
	No.	$	No.	$
Labour—				
Main Department	403	84,721	445	115,145
Special War	2,316	309,984	914	174,414
Unemployment Insurance	6,392	893,353	8,477	1,388,469
Totals, Labour	9,111	1,288,058	9,836	1,678,028
Library of Parliament	21	4,511	27	5,625
Mines and Resources—				
Departmental Administration	56	11,524	56	11,398
Immigration	597	103,183	760	130,411
Indian Affairs	1,047	104,626	1,016	108,777
Lands, Parks and Forests	593	77,669	737	100,942
Mines and Geology	608	108,769	608	115,922
Surveys and Engineering	793	94,328	1,184	102,504
Totals, Mines and Resources	3,694	500,099	4,361	569,954
Munitions and Supply	3,747	585,369	–	–
National Defence—				
General Defence Administration	143	24,175	78	15,836
Militia Services	489	60,494	622	124,355
Naval Services	5,004	2,006,032	3,337	1,596,248
Air Services	11,874	1,302,533	6,003	678,590
Military Topographic Surveys	12	2,996	11	2,802
Royal Military College	47	5,908	52	6,687
Inspection Board	1	500	1	500
Public Relations	22	3,738	11	1,398
Army Internment Operations	47	6,018	28	3,646
Director of Technical Research	57	11,077	51	9,249
Emergency Militia	8,956	927,443	8,770	926,187
Dependents' Board of Trustees	268	27,122	264	28,642
Totals, National Defence	26,920	4,378,036	19,228	3,394,140
National Health and Welfare—				
Departmental Administration	–	–	144	20,690
Health	364	79,549	406	84,243
Welfare	202	17,625	508	68,315
War Appropriation	31	6,278	26	5,246
National Film Board	705	118,238	746	129,142
Totals, National Health and Welfare	1,302	221,690	1,830	307,636
National Research Council	1,385	236,434	1,379	266,209
National Revenue—				
Main Department	4,285	741,125	4,662	793,470
Income Tax Division	6,421	801,860	7,109	915,917
Totals, National Revenue	10,706	1,542,985	11,771	1,709,387
National War Services	1,217	179,230	45	8,071
Post Office—[1]				
Civil Government	995	135,470	1,143	150,036
Outside Service	12,769	6,769,564	14,109	7,243,992
War Appropriation	6	632	4	425
Totals, Post Office	13,770	6,905,666	15,256	7,394,453
Privy Council	44	7,798	43	8,584
Canadian Information Service	183[2]	27,336[2]	109	19,445
Public Archives	50	9,428	52	9,697
Public Printing and Stationery	794	131,700	771	126,507

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[1] Statistics do not include the numbers of postmasters of revenue offices. It should also be noted that post-office expenditures are balanced by receipts from the public. [2] Wartime Information Board.

15.—Civil Service Employees and Total Expenditures on Salaries, Wages and Bonus Allowances, by Departments and Principal Branches, March, 1945, and March, 1946—concluded.

Department and Branch	March, 1945		March, 1946	
	Employees	Expenditure	Employees	Expenditure
	No.	$	No.	$
Public Works—				
Civil Government	268	52,338	312	64,553
Outside Service	5,577	529,512	5,872	552,397
Totals, Public Works	5,845	581,850	6,184	616,950
Reconstruction and Supply	88	17,631	1,925	311,693
Royal Canadian Mounted Police	499	450,035	459	422,531
Secretary of State	387	66,873	457	75,219
Senate	121	15,722	141	21,604
Soldiers' Settlement and Veterans' Land Act	500	84,097	1,411	215,609
Trade and Commerce—				
Headquarters and Miscellaneous Branches	685	129,760	926	176,270
Board of Grain Commissioners	772	136,474	797	140,761
Dominion Bureau of Statistics	985	124,310	1,041	137,772
Canadian Government Elevators	178	24,723	143	22,074
Totals, Trade and Commerce	2,620	415,267	2,907	476,877
Transport—				
Main Department	6,700	1,039,664	7,305	1,167,489
Transport Commissioners	82	19,004	85	19,563
Air Transport Board	15	4,601	42	13,470
Totals, Transport	6,797	1,063,269	7,432	1,200,522
Veterans Affairs	6,864	1,011,845	12,830	2,140,292
Grand Totals	**115,908**	**22,660,846**	**120,557**	**24,409,720**

Section 6.—Supervision of Race-Track Betting

The supervision of race-track betting, under the pari-mutuel system, has been under the jurisdiction of the Minister of Agriculture since it first operated during the racing season of 1921. The actual supervision is carried out by officers of the Royal Canadian Mounted Police. During the war years the statistics under this heading were dropped from the Year Book. Those last published were for the years 1930-39 and were given at p. 965 of the 1941 edition. The following table links in with the 1941 Year Book and brings the data on a comparable basis up to the year 1945.

17.—Race-Track Betting in Canada, Years Ended Mar. 31, 1939-45, and by Provinces, 1945

NOTE.—Figures for 1924-38 are given at p. 1076 of the 1940 Year Book.

Year	Associations	Days Racing	Amounts Wagered	Pari-Mutuel Receipts Retained	Prize Money
	No.	No.	$	$	$
Totals, 1939	**26**	**285**	**21,695,523**	**1,594,438**	**1,070,770**
Totals, 1940	**26**	**284**	**21,355,037**	**2,189,746**	**1,051,824**
Totals, 1941	**25**	**282**	**21,363,629**	**2,107,025**	**1,073,625**
Totals, 1942	**24**	**275**	**25,470,913**	**2,531,126**	**1,061,290**
Totals, 1943	**22**	**283**	**33,145,013**	**3,137,726**	**1,178,550**
Totals, 1944	**25**	**298**	**37,068,199**	**3,487,489**	**1,427,582**
1945					
Quebec	5	70	2,179,529	196,144	243,600
Ontario	7	98	25,907,764	2,298,160	747,000
Manitoba	2	28	3,869,183	376,713	161,600
Saskatchewan	3	16	709,625	78,553	37,525
Alberta	5	39	2,667,823	271,270	136,545
British Columbia	4	56	6,859,334	723,918	262,075
Totals, 1945	**26**	**307**	**42,193,258**	**3,944,758**	**1,588,345**

CHAPTER XXXII.—SOURCES OF OFFICIAL STATISTICAL AND OTHER INFORMATION RELATIVE TO CANADA

CONSPECTUS

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Section 1.—Sources of Dominion General Information

The chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the decennial and quinquennial censuses are planned and statistical information of all kinds—Dominion and Provincial—is centralized. In regard to information that is not mainly statistical the individual Departments concerned with the particular subject, as indicated in the Directory, Section 2 of this Chapter, should be approached. Certain Government bodies and National Agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organized primarily as information or publicity agencies. Among these are the Information Division of the Department of External Affairs (formerly known as the Canadian Information Service), the Canadian Broadcasting Corporation, and the National Film Board. The Departments of Agriculture and Mines and Resources, while not thus classed, are interested in the dissemination of information to a greater extent than most other Government Departments, and several other Departments have Publicity Branches or Public Relations Divisions.

All Government Departments, with few exceptions, issue their own lists of reports and publications. They must, according to statute, publish Annual Reports each year which are tabled in the House of Commons by their respective Ministers. However, for the purpose of this Section, the descriptions given below are limited to the four special publicity services specified in the first paragraph above. Section 2, on the other hand, has been prepared with the purpose of presenting to the reader a Directory of all sources of information, Dominion and Provincial. This, it is hoped, will direct the reader who is not in touch with governmental organization to the proper channels from which he can draw material relating to any particular subject.

The Dominion Bureau of Statistics.—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43).[*] The Act was a consolidation of all previous statistical legislation and was based on the report of a Commission on Statistics, appointed in 1912, which recommended (1) a series of specific reforms and enlargements in Canadian statistics, and (2) a policy of statistical co-ordination for the Dominion, under central direction. In 1915, following the recommendations in this Report, the office of Dominion Statistician was created but it was not until 1918 that the recommendations of the Commission were embodied in legislation.

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[*] Consolidated as the Statistics Act (c. 190, R.S.C., 1927).

The chief aims of the Bureau of Statistics are:—

(1) To furnish factual data for administration and government.
(2) To assist in developing Canada as a well-informed nation by standing ready to help business men and individuals to plan their enterprises and their lives.

It is in regard to the second of these aims that this review is concerned.

Inquiries.—Literally, hundreds of individual requests for specific information are received in the Bureau each day, routed through the main Divisions and answered as expeditiously as possible. Since the field of effort covers, from the statistical side, all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. This will be emphasized from a glance at the Directory following. Nevertheless, it is only in regard to statistical questions that inquiries should be directed to this Bureau.

Publications.—The Dominion Bureau of Statistics is the largest publishing department of the Federal Government: the subjects of its reports cover all phases of the national economy. Items in the vote of the Bureau, passed by Parliament each year, provide limited funds for the printing and processing of reports and bulletins. Reports printed from type are set up by the King's Printer, but the Bureau itself operates its own offset printing presses and all processed reports and bulletins are completely printed as well as published by the Bureau of Statistics.

The present policy with regard to the distribution of publications is based on sales to the public at actual cost of paper and presswork only; compilation, editing and other overhead costs are not included. The object is to extend the service to the public as widely as possible and so spread the compilation and overhead, which are the big items in total costs. A special subscription rate of $30 per year entitles the subscriber to receive a copy of each publication as issued, with the exception of news bulletins. Other special rates are set for series of publications in related groups such as:—

1. Administration
2. Agricultural Production
3. Economic and Business Conditions
4. Education
5. Finance
6. Industrial Production
7. Labour and Prices, Unemployment and Earnings
8. Population
9. Trade, Domestic (including Merchandising) and Foreign
10 Transportation, Communications and Public Utilities
11. Vital Statistics, Criminal Statistics, and Welfare Institutions
12. General

Applications for reports should be sent to the Bureau of Statistics; they should indicate the individual publication or series of reports in which the applicant is interested and include the necessary remittance in the form of a cheque or money-order made payable to the Receiver General of Canada, Ottawa.

Information Division, Department of External Affairs.—The Information Division was established in its present form early in 1947 by the integration of the former Canadian Information Service into the Department. The Canadian Information Service in turn developed from the Wartime Information Service which was set up in the early years of the War of 1939-45.

The former C.I.S. functions of collecting information in many forms and supplying Canadian representatives abroad with up-to-date data about Canadian events, background material on happenings in Canada, etc., are continued by this Division. An Inquiry Service is operated which answers general questions about Canada received from abroad, and particular questions about matters of departmental concern received from within Canada. Reference materials, photographs, posters, and other graphic materials for distribution outside Canada are prepared, and books on Canada are procured for use in reference libraries abroad. Facilities are arranged for journalists visiting Canada and for Canadian speakers abroad, and cultural relations projects are encouraged. In addition to routine duties of arranging departmental press conferences, preparing press releases and obtaining information for the Department's use, the Information Division is frequently responsible for Canadian press relations at international conferences, both in Canada and elsewhere. In general, the activities of the agencies engaged in disseminating Canadian information abroad are co-ordinated by this Division.

This Division works through information officers in Canadian missions at New York, London, Washington, Paris, and Canberra, and through Canadian representatives in diplomatic and trade missions in other centres.

Canadian Broadcasting Corporation.—Since radio broadcasting was made possible by progress in the field of wireless telegraphy following the War of 1914-18, this medium has become a rival means of giving information to the public along with newspapers, films and other means of communication. This is true in all countries whether, as in the United States, the systems are privately owned or whether, as in Canada and the United Kingdom, they are organized on a national basis.

The Canadian Broadcasting Corporation, since its establishment in 1936, has indeed become one of the most effective channels through which information, official and unofficial, is broadcast to the Canadian people. Because of the widely distributed population, especially of the sparsely peopled areas of the northwest and the far north, radio is relatively more important to Canada than to any other people. Without it the country could not be so effectively linked as it is, for to-day the posts of the far north can receive their news and enjoy the entertainments that the radio provides equally with their fellow citizens living in Halifax, N.S., Montreal, Que., or Vancouver, B.C.

News broadcasts and programs occupy a considerable proportion of national and regional network time. They include news, drama, informative talks, children's programs, religious programs, public services broadcasts, sports, women's activities, etc.

An important development that the War has brought about has been the world coverage of news broadcasts from international centres that are picked up by the CBC short-wave receiving stations and rebroadcast to Canadian listeners. Thus it is that CBC is taking its rightful place among the official sources of information available to Canadians.

Through the International Shortwave Service operated by the CBC, programs are broadcast daily in ten languages: English, French, Czech, Dutch, Danish, Norwegian, Swedish, German, Spanish and Portuguese. The transmitters are located at Sackville, N.B., and the programs are beamed to Europe, the West Indies, Central and South America. By this service, information on life in Canada and on economic conditions is broadcast abroad as part of the general information plan in promoting a better understanding of Canada in other countries.

National Film Board.—The Canadian Government, through the National Film Board, produces films, filmstrips, photographs, photo displays, posters, wall-hangers, booklets and other graphic material for distribution in Canada and abroad.

The Board produces one or more monthly theatrical releases in English and French for distribution to theatres throughout Canada. An extensive non-theatrical distribution is maintained through the medium of rural circuits operating in every province, and through film libraries in all major urban centres. To service the field, regional offices are maintained in every province.

Newsreel stories dealing with many aspects of Canadian life are also produced by the Board for inclusion in the newsreels which are distributed throughout the world by the principal newsreel companies in New York, U.S.A., and London, England. The National Film Board's technicians keep abreast of recent developments in colour production, stereoscopic films and television. Many Canadian films are featured on television programs in the United States and the United Kingdom.

In addition to films and other graphic materials produced in the English and French languages, the Board has produced or secured the production of Canadian films in French for distribution in France and her colonies; in Spanish for Spain and Latin America; in Portuguese for Brazil, Portugal, Portuguese West Africa and Portuguese Guinea; in Danish for Scandinavia, Greenland and Iceland; in Dutch for the Netherlands, the Netherlands East Indies and the Netherlands West Indies; in German for Switzerland, Austria and the British and American occupied zones of Germany; in Russian and Ukrainian for the U.S.S.R.; in Turkish for Turkey, and in Arabic for Egypt, Tripolitania, Cyrenaica, Lebanon, Syria and Iraq.

The Distribution Division in Ottawa directs the flow of all N.F.B. films through National Film Board offices in London, England; New York, Chicago and Washington in the United States; Sydney, Australia and Mexico City, Mexico; through Canadian Embassies, Legations, Trade Commissions, and Information Offices in other countries; and through professional theatrical and non-theatrical distributors within all these territories.

The Board maintains a photographic library of more than 80,000 negatives covering many aspects of Canada, its landscape, resources, industries, agriculture, and the national life and character of the Canadian people. Its photographs are distributed to Government Departments, tourist bureaus, newspapers, magazines and publishing houses within Canada and to Trade Commissioners and other representatives abroad who may request them.

Section 2.—Directory of Sources of Official Information for All Departments (Dominion and Provincial)

In previous editions of the Canada Year Book, this Chapter on Sources of Official Information has been taken up, for the main part, by detailed lists of publications issued by the Dominion Government Departments and the Provincial Government Departments. Such lists as these were of value to readers since the Year Book was the only place where publications of this kind were brought together. The rapid increase in the number of printed reports, bulletins and maps that has characterized all publicity efforts in recent years has made it increasingly difficult to spare the space in the Year Book to carry such detailed listings.

Moreover, since the Year Book lists have been prepared and published on a Departmental basis, they have been less and less convenient to the reader as the lists have increased in length. For instance, several Departments issue reports that can be classified under the broad heading of Agriculture—among these are the Department of Agriculture, the Dominion Bureau of Statistics and the National Research Council, not to mention the Northwest Territories and Yukon Administration which administers all the resources of those areas.

Without a subject cross-index, it is very difficult for the reader, unless he works carefully through the individual lists (which requires much time and labour), to know just where to go for information he desires under a certain subject heading, Again, the space that can be spared for individual lists does not admit of setting out the material in easily readable form. The size of type as set up in past editions was much too small for convenient reading and revisions could be made only once a year at best although, as a rule, such lists are subject to very frequent change.

The King's Printer, Ottawa, now publishes an Official List of all Government publications printed from type. This list, which may be obtained free of charge, is revised at regular intervals and is classified on a subject basis, as well as being adequately cross-referenced. Moreover, most Federal and Provincial Departments that put out near-print publications (either in mimeographed or rotaprinted form) issue lists of these free to the public and very often such lists include the printed publications published by the same Departments, and available through the King's Printer. Such individual lists are far more up to date and are listed and classified for more convenient reference than space in the Year Book will allow.

Apart from the question of publications, however, there is a growing volume of inquiries received from the public relative to all manner of subjects. This also makes it desirable to devise some means of guiding the public to the source of information on specific matters. Very few people are acquainted with internal government organization and it is not surprising that inquiries have very often to be routed and rerouted several times before they get to their intended destination.

For these reasons, it is now felt that this Chapter of the Year Book can best fill its function by serving as a Directory by means of which the reader is led to the basic sources of information in a particular field. With this in view, the following subject analysis of Federal and Provincial sources of information has been prepared.

To make best use of this Directory, it is necessary that the reader understand broadly the differences in function between Federal and Provincial Departments and their separate fields of work. For instance, the inquirer who seeks information on forestry may direct his correspondence to either the Dominion Forest Service or the Dominion Bureau of Statistics on the one hand, or to one or all of the Provincial Departments administering the forest resources of the Provinces on the other.

Certain fields of effort, such as Trade and Commerce, Customs and Excise, Currency and Banking, Navigation, Transportation, Radio, Census of Population, National Defence, etc., are, constitutionally, Federal matters and in such fields the respective Departments at Ottawa are the proper sources with which to communicate. The written constitution of Canada (the British North America Act) has allocated the administration of the important and basic fields of lands and natural resources to the Provinces. The Provinces are also supreme in education, roads and highways, health and hospitals, although there is a considerable area of overlap, since the Federal Departments, especially the Dominion Bureau of Statistics, co-ordinate the picture for Canada as a whole in these fields.

As a general guide to the public, it may be pointed out that for questions that relate to the actual development and administration of resources in the provinces, inquiries should be forwarded to the particular Provinces concerned. The Federal Government, while not administering provincial resources, co-operates closely with the Provinces and is in a position to furnish over-all material for Canada, especially production data, on a national basis, marketing data on international, national and provincial bases, research work and experimental station data on a national basis, and also on a provincial basis from Federal Government stations located within particular Provinces. In agriculture, for instance, data on the breeding of live stock and the improvement of strains, on agricultural marketing and crop yields are cases in point—in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Where inquiries are directed to Federal sources, they should, as a general rule, be sent to the individual Departments listed in the Directory for information not of a statistical nature but, whatever the subject, where the information required is clearly statistical, they should be addressed to the Dominion Bureau of Statistics.

Bearing these points in mind, the interested reader will be able to apply the information given in the Directory to best advantage.

In the Directory, symbols are set against individual sources of information to give special information such as availability of detailed lists of publications, the costs of such lists (in cases where a charge is made), or information of other kinds. All Departments of Government whether Federal or Provincial stand ready and prepared to furnish, by letter or otherwise, information in their respective fields, free of charge, although where special compilations are called for, a nominal fee is sometimes made.

The address for all Federal Departments is Ottawa, Ontario. Inquiries forwarded to Provincial Government Departments should be addressed to the provincial capitals concerned. These are:—

Prince Edward Island	Charlottetown
Nova Scotia	Halifax
New Brunswick	Fredericton
Quebec	Quebec
Ontario	Toronto
Manitoba	Winnipeg
Saskatchewan	Regina
Alberta	Edmonton
British Columbia	Victoria

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION

▲ Most publications of Federal Departments printed from type are purchasable from the King's Printer who publishes a current list. Photographs, films and displays may be purchased from the National Film Board at prices obtainable on application. Most Provincial Government printed publications may be obtained from the King's Printers of the provinces. For addresses of Provincial Governments see text immediately preceding this Directory.

☐ Near-printed and mimeographed reports free or purchasable from this Department or Branch, particulars on application.

○ Directory of Departmental Organizations and Activities available from the Federal or Provincial Department on request.

● List of Publications available free of charge on request from Federal or Provincial Departments concerned. (In the case of the Labour Department a list of publications is given in the *Labour Gazette*.)

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
(Unless otherwise indicated the location of the Department or Branch is Ottawa, Ont.)		*(For seats of Provincial Governments see list immediately preceding this Directory)*
☐●...Dominion Bureau of Statistics ●......Department of Mines and Resources Information Service ●......Department of External Affairs Information Division (deals with questions about the Department originating in Canada, and with general requests originating in all countries outside Canada) ☐●...National Film Board—(films, filmstrips, posters, photo displays, photographs on all subjects)	BROAD GENERAL INFORMATION ON CANADA'S RESOURCES AND INSTITUTIONS	For broad general information in regard to particular Provinces application should be made to: **P.E.I.,** Publicity and Travel Bureau; **N.S.,** Dept. of Industry and Publicity; **N.B.,** Dept. of Industry and Reconstruction or Dept. of Provincial Secretary-Treasurer; **Que.,** Bureau of Statistics; **Ont.,** Bureau of Statistics and Research, or Publicity Branch; **Man.,** Travel and Publicity Bureau and Dept. of Provincial Secretary; **Sask.,** Bureau of Publications; **Alta.,** Publicity and Promotion Office, Alberta Travel Bureau, or Bureau of Statistics; and **B.C.,** Bureau of Economics and Statistics.
☐○●Department of Agriculture Publicity and Extension Division Experimental Farms Service (stations and farms throughout Canada) ☐●...Department of Mines and Resources (for Northwest Territories and Yukon and farming on Indian Reservations) Department of Veterans Affairs (Veterans only) Department of Finance (for farm improvement loans and long-term mortgage loans) ☐●...National Film Board (films, photo displays, photographs) ☐●...Dominion Bureau of Statistics	AGRICULTURE GENERAL AND FARMING	**All Provinces** except **Que., Ont., Man.:**—Dept. of Agriculture **Que.:**—Dept. of Agriculture, Information and Research Branch Dept. of Industry and Commerce Provincial Bureau of Statistics **Ont.:**—Dept. of Agriculture, Publicity Branch Bureau of Statistics and Research **Man.:**—Dept. of Agriculture, Publications Branch and Extension *Additional*, **Alta.** and **B.C.:**—Provincial Bureaus of Statistics Dominion Bureau of Statistics (summaries of provincial data).......... ●☐
☐●...Department of Mines and Natural Resources Mines and Natural Branch Indian Affairs Branch (Indian handicrafts) National Gallery of Canada ☐●...National Film Board (films and filmstrips) Department of Veterans Affairs (Veterans only)	ART AND HANDICRAFTS	**N.S.:**—Dept. of Industry and Publicity (for handicrafts and home industry) Nova Scotia College of Art **N.B.:**—Dept. of Industry and Reconstruction, Handicraft Division The New Brunswick Museum (Saint John) **Que.:**—Provincial Secretary (rural handicrafts) **Ont.:**—Royal Ontario Museum Dept. of Planning and Development, Trade and Industry Branch **Man.:**—Dept. of Agriculture (handicrafts) **Alta.:**—Dept. of Economic Affairs (cultural activities) **B.C.:**—Provincial Museum (Indian handicrafts)
	ATHLETICS See Physical Fitness	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
●......Department of Transport Civil Aviation Division (all matters affecting controls, licences and facilities) Trans-Canada Air Lines Department of National Defence Directorate of Public Relations (Air Force) □●...National Film Board (films and photographs)	AVIATION	
Bank of Canada Industrial Development Bank Department of Finance Department of Insurance (for trust and loan business) Department of Reconstruction and Supply Central Mortgage and Housing Corporation Post Office Department Savings Branch □●...Dominion Bureau of Statistics (for summary statistics)	BANKING Trust and Loan Companies	**Ont.:**—Province of Ontario Savings Office Bureau of Statistics and Research **Alta.:**—Government of Alberta Treasury Branches Dominion Bureau of Statistics (summaries of provincial data)............●□
	BIRTHS See Vital Statistics	
Department of Public Works Chief Architect's Branch Department of Reconstruction and Supply Central Mortgage and Housing Corporation □●...Dominion Bureau of Statistics	BUILDING CONSTRUCTION	**Ont.:**—Dept. of Labour, Factory Inspection Branch Dept. of Planning and Development, Community Planning Branch Dominion Bureau of Statistics (summaries of provincial data).........●□
●......Department of Transport Canal Services □●...Dominion Bureau of Statistics	CANALS	
	CITIZENSHIP See Population	
	CIVIL AVIATION See Aviation	
	CLIMATE See Weather	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐●...Department of Mines and Resources Mines and Geology Branch ☐●...National Film Board (films, filmstrips, photographs) ☐●...Dominion Bureau of Statistics	COAL	**N.S., Que., Ont., B.C.:**—Dept. of Mines **N.B., Alta.:**—Dept. of Lands and Mines **Sask.:**—Dept. of Natural Resources and Industrial Development **Man.:**—Dept. of Mines and Natural Resources Dominion Bureau of Statistics (summaries of provincial data).........●☐
☐●...Department of Mines and Resources Lands, Parks and Forests Branch (for wireless communications in Northwest Territories and Yukon, and Telephones in National Parks) ●......Department of Transport Radio Division Department of Public Works Telegraph Branch (provides telegraph service in remote areas) ☐●...Dominion Bureau of Statistics	COMMUNICATIONS *For* 'Post Office' *and* 'Mail' See "Post Office"	**Ont.:**—Municipal Board and Bureau of Statistics and Research **Man.:**—Manitoba Telephone System **Sask.:**—Dept. of Telephones and Telegraphs **Alta.:**—Dept. of Railways and Telephones
Federal District Commission	COMMUNITY PLANNING	**Ont.:**—Dept. of Planning and Development, Community Planning Branch
☐●...Department of Mines and Resources Lands, Parks and Forests Branch Advisory Board on Wild Life Protection (interdepartmental) Federal District Commission	CONSERVATION	**P.E.I.:**—Provincial Secretary-Treasurer **N.S.:**—Dept. of Lands and Forests **N.B.:**—Dept. of Lands and Mines **Que.:**—Dept. of Lands and Forests Dept. of Game and Fisheries Dept. of Hydraulic Resources **Ont.:**—Dept. of Lands and Forests Dept. of Planning and Development, Conservation Branch **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development **Alta.:**—Dept. of Lands and Mines **B.C.:**—Dept. of Lands and Forests
●......Department of External Affairs Information Division Secretary of State Department Privy Council ☐●...Dominion Bureau of Statistics	CONSTITUTION	**All Provinces** except **Man.:**—Depts. of Attorney-General **Man.:**—Provincial Secretary
☐●...Dominion Bureau of Statistics	COST OF LIVING	
Department of Justice Clemency and Penitentiaries Branch ☐●...Dominion Bureau of Statistics	CRIME AND DELINQUENCY	**All Provinces:**—Depts. of Attorney-General *Additional:*—**N.S.:**—Dept. of Public Welfare **Ont.:**—Dept. of Reform Institutions
Bank of Canada Department of Finance Royal Mint ☐●...Dominion Bureau of Statistics	CURRENCY	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐○●Department of Agriculture Dairy Products Division Bacteriology and Dairy Research Division ☐●...Dominion Bureau of Statistics	DAIRYING	**P.E.I., N.S.:**—Depts. of Agriculture **N.B., Ont., Alta., B.C.:**—Depts. of Agriculture, Dairy Branches (also Milk Control Board for **Ont.**) **Que., Sask.:**—Depts. of Agriculture, Dairy Commissions **Man.:**—Dept. of Agriculture, Milk Control Board Dominion Bureau of Statistics (summaries of provincial data).........●☐
	DEATHS *See* Vital Statistics	
Department of National Defence Naval Information Division Directorate of Public Relations (Army) Directorate of Public Relations (Air Force) ☐●...National Film Board (films and photographs) Reconstruction and Supply Publicity Branch (*re* Canadian Arsenals Limited)	DEFENCE	
Bank of Canada Department of Reconstruction and Supply Economic Research Branch ●......Department of Labour Research and Statistics Branch Legislation Branch ☐●...Department of Mines and Resources Mines and Geology Branch (industrial minerals) ☐○●Department of Agriculture Economics Division ☐●...Dominion Bureau of Statistics	ECONOMIC RESEARCH	**N.S.:**—Nova Scotia Research Foundation **N.B.:**—Dept. of Industry and Reconstruction **Ont.:**—Bureau of Statistics and Research **Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce Economic Advisor, Executive Council **Alta.:**—Dept. of Economic Affairs **Sask.:**—Economic Advisory and Planning Board
☐●...Department of Mines and Resources Indian Affairs Branch ☐●...Department of National Health and Welfare Department of Veterans Affairs (Veterans only) ●......Department of Labour Canadian Vocational Training Branch ☐●...Dominion Bureau of Statistics	EDUCATION *For* 'Informational Films' *See* "Motion Pictures"	**All Provinces:**—Depts. of Education (Technical, Visual and Audio Education)
☐●...Department of Mines and Resources Surveys and Engineering Branch ☐●...National Film Board (films, filmstrips and photographs) ☐●...Dominion Bureau of Statistics (for Central Electric Stations)	ELECTRIC POWER	**P.E.I.:**—Public Utility Commission **N.B.:**—Electric Power Commission (Saint John) **N.S., Man., Sask., Alta., B.C.:**—Power Commissions **Ont.:**—Hydro-Electric Power Commission **Que.:**—Hydro-Electric Commission
●......Department of Labour National Employment Service Research and Statistics Branch ☐●...Dominion Bureau of Statistics	EMPLOYMENT	**Que.:**—Dept. of Labour, Provincial Employment Bureau
Canadian Government Exhibition Commission	EXHIBITIONS	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐ ●...Department of Mines and Resources Mines and Geology Branch	EXPLOSIVES	
	FAMILY ALLOWANCES See Welfare	
☐ C ●Department of Agriculture Experimental Farms Service, Field Husbandry Division ☐ ●...National Film Board (films and photographs) ☐ ●...Dominion Bureau of Statistics	FIELD CROPS	**P.E.I., N.S., N.B., Que.,Man.:**—Depts. of Agriculture **Ont.:**—Dept. of Agriculture, Crops, Seeds and Weeds Branch **Sask., Alta., B.C.:**—Depts. of Agriculture Field Crop Branches
Department of Finance Bank of Canada ☐ ●...Dominion Bureau of Statistics	FINANCE (Government)	**P.E.I.:**—Provincial Secretary-Treasurer **N.S., N.B.:**—Depts. of Provincial Treasurer **Que.:**—Provincial Treasury Dept. **Ont.:**—Provincial Treasurer's Dept. **Man., Sask., Alta.:**—Treasury Depts. **B.C.:**—Dept. of Finance
Dominion Fire Prevention Association (for fire loss statistics) ☐ ●...Department of Mines and Resources Dominion Forest Service Board of Transport Commissioners (for inquiries regarding forest fire protection along railway lines)	FIRE PREVENTION	**All Provinces:**—Provincial Fire Marshals (for provincial fire loss statistics) **N.S.:**—Dept. of Lands and Forests **N.B.:**—Dept. of Lands and Mines **Que.:**—Dept. of Lands and Forests Forest Protection Service **Ont.:**—Dept of Lands and Forests Forest Protection Division **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development **Alta.:**—Dept. of Lands and Mines **B.C.:**—Dept. of Lands and Forests
●......Department of Fisheries Information Branch Fisheries Research Board of Canada ☐ ●...National Film Board (films, photo-displays, photographs ☐ ●...Dominion Bureau of Statistics	FISHERIES	**P.E.I.:**—Dept. of Industry and Natural Resources **N.S.:**—Dept. of Industry and Publicity, Fisheries Division **N.B.:**—Dept. of Industry and Reconstruction Fisheries Branch **Que.:**—Dept. of Game and Fisheries **Ont.:**—Dept. of Lands and Forests Fish and Wildlife Division **Man.:**—Dept. of Mines and Natural Resources Game and Fisheries Branch **Sask.:**—Dept. of Natural Resources and Industrial Development Fisheries Branch **Alta.:**—Dept. of Lands and Mines Fish and Game Branch **B.C.:**—Dept. of Fisheries
Foreign Exchange Control Board	FOREIGN EXCHANGE	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐ ●...Department of Mines and Resources Lands, Parks and Forests Branch ☐ ●...National Film Board (films, film-strips, photo-displays and photographs) ☐ ●...Dominion Bureau of Statistics	FOREST RESOURCES	**P.E.I.:**—Dept. of Reconstruction **N.S., Que., Ont., B.C.:**—Depts. of Lands and Forests **N.B., Alta.:**—Dept. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development
	FRUIT See Horticulture	
	FUEL See Coal, Oil, Forest Resources	
☐ ○ ●Department of Agriculture Marketing Service (fur grading) Experimental Farms Service (for fur ranches) ☐ ●...National Film Board (photographs) ☐ ●...Dominion Bureau of Statistics (for general fur products statistics)	FUR FARMING See Trapping	**P.E.I., N.B., Que., Alta., B.C.:**-Dept. of Agriculture **N.S., Ont.:**—Depts. of Lands and Forests **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources
☐ ●...Department of Mines and Resources Geographic Board of Canada	GEOGRAPHY	
☐ ● ...Department of Mines and Resources Mines and Geology Branch	GEOLOGY	**N.S., B.C.:**—Depts. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Que.:**—Dept. of Mines Geological Surveys Branch **Ont.:**—Dept. of Mines Geological Branch **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development
●......Department of External Affairs Information Division Secretary of State (Dominion-Provincial channel of communication) Chief Electoral Office (Electoral Act and Voting Lists) Office of the Privy Council (Cabinet and Ministerial Committees)	GOVERNMENT *For* 'House of Commons', 'Senate of Canada', *and* 'Library of Parliament' *See* "Parliament"	**P.E.I.:**—Provincial Secretary-Treasurer **N.S., Ont., Man., Sask., Alta., B.C.:**—Depts. of Provincial Secretary **N.B.:**—Dept. of Provincial Secretary-Treasurer **Que.:**—Office of Provincial Secretary

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐ ●...Department of National Health and Welfare (covers all branches of health such as Child and Maternal Health, Dental Health, Industrial Health, Public Health Engineering, Venereal Diseases, etc.—*see* also under "nutrition")	HEALTH *For* 'Health of Veterans' *See* "Veterans Affairs"	**P.E.I.:**—Dept. of Health and Welfare **N.S., Sask., Alta.:**—Depts. of Public Health **N.B.:**—Dept. of Health and Social Services **Que., Ont., B.C.:**—Depts. of Health **Man.:**—Dept. of Health and Public Welfare
	HIGHWAYS *See* Transportation	
☐ ●...Dominion Archives ☐ ●...Department of Mines and Resources Lands, Parks and Forests Branch (for historic sites and monuments) ☐ ●...Dominion Bureau of Statistics	HISTORY	**Ont.:**—Legislative Library Bureau of Statistics and Research **Man.:**—Provincial Library and Archives **B.C.:**—Provincial Archivist, Dept. of Education
☐ C ●Department of Agriculture Fruit and Vegetable Division Experimental Farms Service, Horticulture Division ☐ ●...Dominion Bureau of Statistics	HORTICULTURE	**P.E.I.:**—Dept. of Agriculture **N.S., N.B., Que., Alta., B.C.:**—Depts. of Agriculture, Horticultural Branches **Que.:**—Dept. of Agriculture, Fruit Branch **Ont.:**—Dept. of Agriculture, Agriculture and Horticulture Branches **Man.:**—Dept. of Agriculture
	HOUSING *See* Building Construction	
☐ ●...Department of Mines and Resources Immigration Branch, Ottawa District Superintendent of Immigration, Winnipeg District Superintendent of Immigration, Vancouver ☐ ●...Dominion Bureau of Statistics	IMMIGRATION	**Ont.:**—Dept. of Planning and Development Dept. of Provincial Secretary **Man.:**—Dept. of Agriculture and Immigration Dominion Bureau of Statistics (summaries of provincial data)
	INDUSTRIAL DEVELOPMENT *See* Manufacturing	
Department of Insurance (for Dominion Companies) ●......Department of Labour Annuities Branch Department of Veterans Affairs Veterans Insurance Branch Department of Trade and Commerce Export Credits Insurance Corporation ☐ ●...Dominion Bureau of Statistics (summary statistics of all types of insurance)	INSURANCE, LIFE, FIRE, ETC. *For* 'Unemployment Insurance' *See* "Labour"	**P.E.I., N.S., N.B., B.C.** (for Provincial Companies):—Superintendents of Insurance **Que.** (for Provincial Companies):—Provincial Treasury Dept., Insurance Branch **Ont.** (for Provincial Companies):—Dept. of Insurance **Man.** (for Provincial Companies):—Dept. of Public Works, Superintendent of Insurance **Sask.** (for Provincial Companies):—Dept. of Social Welfare Government Insurance Office **Alta.** (for Provincial Companies):—Dept. of Economic Affairs, Alberta Government Insurance Office

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
Department of Reconstruction and Supply Publicity Branch (re Steel Control) ☐●...National Film Board (films and photographs) ☐●Dominion Bureau of Statistics Manufactures Branch	IRON AND STEEL	**Ont.** —Dept. of Planning and Development, Trade and Industry Branch Bureau of Statistics and Research
●......Department of Labour Information and Publicity Branch Annuities Branch Legislation Branch Unemployment Insurance Commission Research and Statistics Branch (unemployment, labour organization and wages, etc.) Canadian Vocational Training Branch Industrial Relations Branch (fair wages) National Employment Service ☐●...Dominion Bureau of Statistics	LABOUR	**N.S., N.B., Que., Ont., Man., Sask., B.C.:**—Depts. of Labour **Alta.:**—Dept. of Trade and Industry Board of Industrial Relations *Additional*: **Que., Ont., Alta., B.C.:**—Provincial Bureaus of Statistics
Royal Canadian Mounted Police General law enforcement duties in any part of Canada; also acts on behalf of Attorneys General as Provincial Police in all provinces except Que., Ont., B.C. Enforces the law regarding traffic in drugs and liquor; acts on behalf of welfare of Eskimos in Arctic Islands.	LAW ENFORCEMENT	**All Provinces:**—Dept. of Attorney General
Clerk of the Privy Council Clerk of the Senate of Canada Clerk of the House of Commons	LEGISLATION	**All Provinces:**—Dept. of Attorney General
☐●...Department of Mines and Resources Bureau of Northwest Territories and Yukon Affairs ☐●...Dominion Bureau of Statistics (Statistical Report covering Canada)	LIQUOR CONTROL	**P.E.I.:**—Attorney General **N.S., Que.:**—Liquor Commissions **N.B., Ont., Alta., B.C.:**—Liquor Control Boards **Man.:**—Liquor Control Commission **Sask.:**—Liquor Commission
☐◐●Department of Agriculture Live-stock and Live-stock Products Division (for marketing data) Live-stock and Poultry Division (for breeding programs and testing data) Health of Animals Division (for contagious diseases, meat inspection, etc.) Animal Husbandry Division, Experimental Farms Service (for general information) Animal Pathology Division (for animal diseases other than contagious) ☐●...National Film Board (photographs) ☐●...Dominion Bureau of Statistics	LIVE STOCK	**P.E.I., N.B., Ont., Man., Sask., Alta., B.C.:**—Depts. of Agriculture, Live-stock Branches **N.S., Que.:**—Depts. of Agriculture, Animal Husbandry Branches *Additional*: **Que., Alta., B.C.:**—Provincial Bureaus of Statistics Dominion Bureau of Statistics
	LIVING (COST OF) See Cost of Living	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
☐ ● ...Department of Mines and Resources Lands, Parks and Forests Branch ☐ ● ...Dominion Bureau of Statistics	LUMBERING	**N.S., Que., Ont., B.C.:**—Depts. of Lands and Forests **N.B., Alta.:**—Depts. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development
	MAIL See Post Office	
Department of Secretary of State (for Patents, Copyright and Trade Marks, and Incorporation of Companies and Companies Act) Department of Trade and Commerce Industrial Development Division ☐ ● ...National Film Board (films and photographs) ☐ ● ...Dominion Bureau of Statistics	MANUFACTURING	**P.E.I.:**—Dept. of Reconstruction **N.S.:**—Dept. of Industry and Publicity **N.B.:**—Dept. of Industry and Reconstruction **Que.:**—Dept. of Trade and Commerce **Ont.:**—Dept. of Planning and Development Trade and Industry Branch **Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Sask.:**—Dept. of Natural Resources and Industrial Development **Alta., B.C.:**—Depts. of Trade and Industry *Additional*: **Que., Ont., B.C.:**—Bureaus of Statistics Dominion Bureau of Statistics (summaries of provincial data)
☐ ● ...Department of Mines and Resources Surveys and Engineering Branch (general maps, hydrographic charts, air navigation charts) Mines and Geology Branch (geological and topographical maps) ☐ ● ...Dominion Bureau of Statistics (economic and census maps)	MAPS AND CHARTS	
	MARRIAGES See Vital Statistics	
☐ ● ...Dominion Bureau of Statistics Merchandising and Services	MERCHANDISING	**Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Alta., B.C.:**—Depts. of Trade and Industry
☐ ● ...Department of Mines and Resources Mines and Geology Branch ☐ ● ...Dominion Bureau of Statistics (for production data)	METALS (*other than* iron and steel)	**N.S., Que., Ont., B.C.:**—Depts. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development Dominion Bureau of Statistics (summaries of provincial data).........●☐
	METEOROLOGY See Weather	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐ ●...Department of Mines and Resources Mines and Geology Branch ☐ ●...Dominion Bureau of Statistics (for production data)	MINING AND MINERALS	**N.S., Que., Ont., B.C.:**—Depts. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development Dominion Bureau of Statistics (summaries of provincial data)
☐ ●...National Film Board *Produces and distributes films, still photos and other visual materials of national and cultural interest, newsreel films, theatrical films and short documentary films.*	MOTION PICTURES	**N.S., Que., Man., Sask., Alta.** and **B.C.** produce educational or informational films. **P.E.I.** and **N.B.** buy such films but do not produce themselves. Most Provinces have set up Motion Picture Censorship Boards for censoring films prior to public exhibition. *Details may be obtained by application to the Province concerned.*
☐ ●...Dominion Bureau of Statistics Public Finance Branch	MUNICIPAL AFFAIRS	**N.S., Que., Ont., Sask., Alta., B.C.:**—Depts. of Municipal Affairs **N.B.:**—Dept. of Federal and Municipal Relations **Man.:**—Dept. of Municipal Commissioner
☐ ●...Dominion Bureau of Statistics	NATIONAL INCOME	
	NATURALIZATION See Population	
Department of Public Works (for construction and operation of graving docks), Navigable Waters Protection Act, Chief Engineer's Branch (for marine works construction)	NAVIGATION	
☐ ●...Department of National Health and Welfare ☐ ●Department of Agriculture	NUTRITION	
☐ ●...Department of Mines and Resources Mines and Geology Branch ☐ ●...National Film Board ☐ ●...Dominion Bureau of Statistics	OIL	**N.S.:**—Dept. of Mines **N.B., Alta.:**—Depts. of Lands and Mines **Ont., B.C.:**—Depts. of Mines **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development Dominion Bureau of Statistics (summaries of provincial data)............●☐

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
Department of National Health and Welfare	OLD AGE PENSIONS (Including Pensions for the Blind)	**P.E.I.:**—Old Age Pension Commission, Charlottetown **N.S.:**—The Old Age Pensions Board, Halifax **N.B.:**—The Old Age Pensions Board, Fredericton **Que.:**—Quebec Old Age Pensions Commission, Quebec **Ont.:**—Ontario Old Age Pensions Commission, Toronto **Man.:**—The Old Age and Blind Persons' Pensions Board, Winnipeg **Sask.:**—Social Welfare Board, Regina **Alta.:**—Old Age Pensions Board, Edmonton **B.C.:**—Old Age Pension Board, Vancouver
House of Commons Senate of Canada Library of Parliament	PARLIAMENT	**P.E.I., N.B., Man., Sask., Alta., B.C.:**—Legislative Assembly **N.S., Ont.:**—House of Assembly **Que.:**—Legislative Council Legislative Assembly
	PHILATELY See Post Office	
●...Department of National Health and Welfare (additional material available upon direct application to Physical Fitness Division of this Department) National Council of Physical Fitness □●...National Film Board (filmstrip and photo-display)	PHYSICAL FITNESS AND RECREATION See *also* Health	**P.E.I.:**—Dept. of Education, Physical Fitness Division **N.S.:**—Dept. of Public Health, Physical Fitness Division **N.B.:**—Dept. of Education **Ont.:**—Dept. of Education, Special Services Branch Ontario Athletic Commission **Man.:**—Dept. of Health and Public Welfare Physical Fitness Division **Sask.:**—Dept. of Health, Physical Fitness Division **B.C.:**—Dept. of Education, Recreation and Physical Education Division
□●...Dominion Bureau of Statistics (for all census population statistics) Department of Mines and Resources Indian Affairs Branch (for Indians) Lands, Parks and Forests Branch (for Eskimos) Department of Secretary of State Canadian Citizenship Branch Naturalization Branch	POPULATION	**Ont.:**—Bureau of Statistics and Research
Post Office Department Administration Branch (for general postal information, postage rates, etc.) Communications Branch (for air and land mail services, and railway mail service) Philatelic Division of the Financial Branch (for philately)	POST OFFICE	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
☐○●Department of Agriculture Poultry Division, Experimental Farms Service (for general information) Livestock and Livestock Products Division (for breeding programs, hatchery regulations, etc.) Animal Pathology Division (for poultry diseases) ☐●...National Film Board (films and photographs) ☐●...Dominion Bureau of Statistics	POULTRY	**P.E.I., N.S., Man.:**—Depts. of Agriculture **N.B., Que., Sask., Alta., B.C.:**—Depts. of Agriculture, Poultry Branches **Ont.:**—Ontario Agricultural College (Guelph), Poultry Division Dominion Bureau of Statistics (summaries of provincial data).........●☐
	POWER See Electric Power	
☐●...Dominion Bureau of Statistics Prices Statistics	PRICES	**Man.:**—Dept. of Mines and Natural Resources Bureau of Industry and Commerce **Alta.:**—Dept. of Trade and Industry
	PUBLIC HEALTH See Health	
☐●...Dominion Bureau of Statistics Transportation and Public Utilities Branch	PUBLIC UTILITIES See *also* Electric Power	**P.E.I.:**—Public Utilities Board **N.S.:**—Board of Commissioners of Public Utilities **N.B.:**—Public Utilities Commission **Man.:**—Manitoba Telephone System Municipal and Public Utility Board **Alta.:**—The Board of Public Utility Commissioners The Natural Gas Utilities Board **B.C.:**—Public Utilities Commission
	PUBLIC WELFARE See Welfare	
Department of Public Works Department of Reconstruction and Supply	PUBLIC WORKS	**P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C.:**—Depts. of Public Works **N.S.:**—Dept. of Highways and Public Works
●......Department of Transport Radio Division (all matters affecting licenses and facilities) Canadian Broadcasting Corporation ☐●...National Film Board ☐●...Dominion Bureau of Statistics	RADIO	**Que.:**—Quebec Radio Bureau **Man.:**—Manitoba Telephone System **Alta.:**—Alberta Government Radio Station
	RAILWAYS See Transportation	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ .SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
Department of Reconstruction and Supply Publicity Branch (for general inquiries) Public Projects Branch Wartime Housing Limited Central Mortgage and Housing Corporation	RECONSTRUCTION	**P.E.I.:**—Dept. of Reconstruction **N.S.:**—Depts. of Agriculture and Marketing and Industry and Publicity **N.B.:**—Dept. of Industry and Reconstruction **Que.:**—Depts. of Lands and Forests, Labour, Roads, Trade and Commerce, Social Welfare and Youth **Ont.:**—Dept. of Planning and Development **Man.:**—Post War Reconstruction Committee **Sask.:**—Dept. of Reconstruction and Rehabilitation, Reconstruction Division **Alta.:**—Dept. of Economic Affairs **B.C.:**—Bureau of Reconstruction
	RECREATION See Physical Fitnes	
	RESEARCH See Economic Research and Scientific Research	
□●...National Research Council Laboratory investigations in applied biology, chemistry, mechanical engineering including aeronautics and hydraulics, physics, electrical engineering and radio, medical research, atomic energy and building research. *Inquiries for general research information should be addressed to the Technical Information Services.* □●...Department of Mines and Resources Lands, Parks and Forests Branch (forest products) Mines and Geology Branch (geology, metallurgy) Surveys and Engineering Branch (engineering, geodesy, astrophysics, astronomics, seismology, aerial mapping) □○●Department of Agriculture Science Service (for research in animal and plant pathology, bacteriology, chemistry, entomology, etc.) Experimental Farms Service (for research in agricultural engineering, crop production, breeding and genetics, plant and animal nutrition, etc.) ●......Department of Transport (aviation, radio, meteorology)	SCIENTIFIC RESEARCH	**N.S.:**—Nova Scotia Research Foundation **Que.:**—Dept. of Trade and Commerce Scientific Research Bureau **Ont.:**—Ontario Research Commission Ontario Research Foundation **Man.:**—Various Depts. such as Health and Welfare, Mines and Natural Resources, Agriculture **Sask.:**—Research Council **Alta.:**—Alberta Research Council
	SOCIAL WELFARE See Welfare	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
Department of Trade and Commerce Standards Division (for inquiries on electricity and gas inspection, weights and measures, and precious metals marking. Inquiries relating to commodity standards and 'Trade Mark Canada' matters formerly under Dominion Trade and Industry Commission are now dealt with by this Division. ☐●...Department of National Health and Welfare (for standards and method of control of quality or potency of food and drugs) ☐ ○ ●Department of Agriculture (for inquiries on standards for meat and canned food, fruit, honey, vegetable and dairy products, etc.) ☐●...National Research Council Canadian Government purchasing standards	STANDARDS	
	STEAMSHIPS See Transportation	
Department of National Revenue Department of Finance	TAXATION	**P.E.I.:**—Provincial Secretary Treasurer **N.S.:**—Dept. of Provincial Treasurer **N.B.:**—Dept. of Provincial Secretary-Treasurer **Que.:**—Provincial Treasury Dept. **Ont.:**—Provincial Treasurer's Dept. **Man., Sask.:**—Treasury Depts. **Alta.:**—Dept. of Municipal Affairs **B.C.:**—Finance Dept.
	TELEGRAPHS AND TELEPHONES See Communications	
☐●...Department of Mines and Resources Mines and Geology Branch	TOPOGRAPHY	
Canadian Travel Bureau ☐●...Department of Mines and Resources Lands, Parks and Forests Branch ☐●...National Film Board (films and photographs) ☐●...Dominion Bureau of Statistics	TOURIST TRADE	**P.E.I.:**—Publicity and Travel Bureau **N.S.:**—Dept. of Industry and Publicity **N.B.:**—Dept. of Lands and Mines, Bureau of Information and Tourist Travel **Que.:**—Provincial Tourist Bureau **Ont.:**—Dept. of Travel and Publicity **Man.:**—Dept. of Mines and Natural Resources Travel and Publicity Bureau **Sask.:**—Bureau of Publicity, Tourist Bureau **Alta.:**—Dept. of Economic Affairs Alberta Travel Bureau **B.C.:**—Dept. of Trade and Industry B.C. Travel Bureau

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Continued

For interpretation of symbols see head of p. 1186

▲SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
Department of Secretary of State for Companies Act and Incorporation of Companies Patents, Copyright and Trade Marks) Department of Trade and Commerce Foreign Trade Service (Trade Commissioner Service, imports, exports, commercial relations, tariffs of other countries, industrial development, trade publicity) Canadian Government Exhibition Commission Canadian Commercial Corporation Export Credit Insurance Corporation ☐●...National Film Board (films) ☐●...Dominion Bureau of Statistics External Trade Branch and Merchandising and Services Section	TRADE	**All Provinces:** Provincial Secretaries for Incorporation of Companies under Provincial Law **P.E.I.:**—Dept. of Industry and Natural Resources **N.S.:**—Dept. of Industry and Publicity **N.B.:**—Dept. of Industry and Reconstruction **Que.:**—Dept. of Trade and Commerce **Ont.:**—Dept. of Planning and Development Trade and Industry Branch **Man.:**—Dept. of Mines and Natural Resources ⚑ Bureau of Industry and Commerce **Sask.:**—Dept. of Natural Resources and Industrial Development ⚑ Trade Services Division **Alta., B.C.:**—Depts. of Trade and Industry
☐●...Department of Mines and Resources Surveys and Engineering Branch (for highways on Dominion lands, and national highways) Lands, Parks and Forests Branch (for highways in National Parks) ●......Department of Transport (railways, civil aviation, marine services, steamship inspection, canals, etc.) Trans-Canada Air Lines ☐●...National Film Board (films, filmstrips and photographs) ☐●...Dominion Bureau of Statistics (statistics of transportation including highways, motor vehicles)	TRANSPORTATON	**P.E.I.:**—Dept. of Public Works and Highways **N.S.:**—Dept. of Highways and Public Works **N.B., Man.:**—Depts. of Public Works, Highway Branches **Que.:**—Dept. of Roads Transportation and Communications Board **Ont.:**—Dept. of Highways Ont. Northland Railway Commission **Sask.:**—Dept. of Highways and Transportation **Alta.:**—Dept. of Public Works, Highway Traffic Board **B.C.:**—Dept. of Public Works, Highway Traffic Board Railway Dept. Dominion Bureau of Statistics (summaries of provincial data)............●☐
☐●...Department of Mines and Resources Lands, Parks and Forests Branch Indian Affairs Branch ☐●...National Film Board (films and photographs) ☐●...Dominion Bureau of Statistics (for general trapping statistics)	TRAPPING *See also* Fur Farming	**P.E.I.:**—Dept. of Agriculture **N.S., Ont.:**—Depts. of Lands and Forests **N.B.: Alta.:**—Depts. of Lands and Mines **Que.:**—Dept. of Game and Fisheries **Man.:**—Dept. of Mines and Natural Resources **Sask.:**—Dept. of Natural Resources and Industrial Development **B.C.:**—Attorney General's Dept., Provincial Game Commission Dominion Bureau of Statistics (summaries of provincial data)............●☐
	TRUST AND LOAN COMPANIES See Banking	

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—Concluded

For interpretation of symbols see head of p. 1186

▲SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
Department of Veterans Affairs Public Relations Branch (General Information, Rehabilitation, Treatment Services, Pensions, Land Settlement, Gratuities, Business and Professional Loans, War Veterans Allowances) Department of Reconstruction and Supply Veterans Housing Ltd. ●......Department of Labour (unemployment insurance and out-of-work allowances, vocational training) ☐●...National Film Board (films and photographs) ●......Department of Mines and Resources Indian Affairs Branch (for Indians)	VETERANS AFFAIRS	**P.E.I.:**—Provincial Secretary **N.S.:**—Dept. of Public Welfare **N.B.:**—Dept. of Health and Social Services **Que.:**—Dept. of Social Welfare and Youth **Ont.:**—Dept. of Public Welfare, Soldiers Aid Commission **Man., B.C.:**—Depts. of Provincial Secretary **Sask.:**—Dept. of Reconstruction and Rehabilitation **Alta.:**—Veterans Welfare Advisory Commission
☐●...Dominion Bureau of Statistics ☐●...Department of Mines and Resources Lands, Parks and Forests Branch (for Northwest Territories and Yukon)	VITAL STATISTICS	**P.E.I.:**—Registrar of Births, Deaths and Marriages **N.S., Sask., Alta.:**—Depts. of Public Health Registrars General **N.B.:**—Dept. of Health and Social Service **Que., B.C.:**—Depts. of Health **Ont.:**—Dept. of Municipal Affairs, Registrar General's Branch **Man.:**—Dept. of Health and Public Welfare
●......Department of Labour Industrial Relations Branch (fair wages) Research and Statistics Branch Legislation Branch ☐●...Dominion Bureau of Statistics	WAGES	**All Provinces** except **Alta.:**—Dept. of Labour **Alta.:**—Dept. of Trade and Industry
☐●...Department of Mines and Resources Surveys and Engineering Branch	WATER LEVELS	
●......Department of Transport Meteorological Division (Toronto) ☐●...Department of Mines and Resources Surveys and Engineering Branch	WEATHER	
☐●...Department of National Health and Welfare (family allowances) ●......Department of Labour Unemployment Insurance Commission Annuities Branch ☐●...Department of Mines and Resources Indian Affairs Branch (for Indians) Lands, Parks and Forests Branch (for Eskimos) ☐●...National Film Board (films and photographs)	WELFARE For 'Welfare of Veterans' See "Veterans Affairs"	**P.E.I.:**—Dept. of Health and Welfare **N.S., Ont., Alta.:**—Depts. of Public Welfare **N.B.:**—Dept. of Health and Social Services **Que.:**—Dept. of Social Welfare and Youth **Man.:**—Dept. of Health and Public Welfare **Sask.:**—Dept. of Social Welfare **B.C.:**—Dept. of Welfare Dominion Bureau of Statistics (summaries of provincial data)...........●☐
●......Department of Labour	WORKMEN'S COMPENSATION	**N.S., B.C.:**—Depts. of Labour, Workmen's Compensation Board **N.B., Ont., Sask., Alta.:**—Workmen's Compensation Board **Que.:**—Workmen's Compensation Commission **Man.:**—Dept. of Attorney General, Workmen's Compensation Board

Section 3.—Dominion and Provincial Royal Commissions

DOMINION ROYAL COMMISSIONS

NOTE.—*This list is in continuance of those at pp. 1108-1110 of the 1940 Year Book; p. 973 of the 1942 Year Book; p. 1043 of the 1943-44 Year Book; p. 1148 of the 1945 Year Book; and p. 1185 of the 1946 Year Book.*

Royal Commission appointed to inquire into the application of Income Tax and Excess Profits Tax to Co-operative Companies and Associations and Mutual Corporations; constituted by Order in Council of Nov. 16, 1944; report made in 1945 (245 pp.); available from the *King's Printer, Ottawa, Price 50 cents.*

Royal Commission on the taxation of Annuities and Family Corporations; constituted by Order in Council of Nov. 13, 1944; report made in 1945 (99 pp.); available from the *King's Printer, Ottawa, Price 25 cents.*

Royal Commission to investigate the communication, by public officials and other persons in positions of trust, of secret and confidential information to agents of a foreign power; constituted by Order in Council of Feb. 5, 1946; Commissioners; Hon. Mr. Justice Robert Taschereau and Hon. Mr. Justice R. L. Kellock; reported dated June 27, 1946 (733 pp.); available from the *King's Printer, Ottawa, Price $1.*

Royal Commission on Administrative Classifications in the Public Service; constituted by Order in Council of Feb. 15, 1946; Chairman: Walter L. Gordon; Commissioners; Major-General E. DeB. Panet and Sir Thomas Gardiner; report dated July 4, 1946 (36 pp.); available from the *King's Printer, Ottawa, Price 25 cents.*

Royal Commission on Coal constituted by Order in Council of Oct. 12, 1944; report dated Dec. 14, 1946 (663 pp.); available from the *King's Printer, Ottawa, Price $2.*

Royal Commission on the Indian Act and Indian Administration in General; constituted by Order in Council of Oct. 11, 1946; (final report not yet published).

PROVINCIAL ROYAL COMMISSIONS

NOTE.—*This list is in continuance of those at pp. 1111-1115 of the 1940 Year Book; p. 996 of the 1941 Year Book; p. 973 of the 1942 Year Book; p. 1043 of the 1943-44 Year Book; p. 1148 of the 1945 Year Book; and p. 1186 of the 1946 Year Book.*

Ontario.—Royal Commission to inquire into and report upon the producing, processing, distributing, transporting and marketing of milk in the Province of Ontario; Chairman: Hon. Mr. Justice Dalton C. Wells; Oct. 1, 1946.

Royal Commission associating E. T. Sterne as a Member of the Royal Commission to inquire into and report upon all matters concerned with scientific and industrial research as they affect the Province of Ontario; Chairman: Dr. R. C. Wallace; July 26, 1946.

Manitoba.—Royal Commission on Adult Education constituted in 1946 (see p. 1186 of the 1946 Year Book). Report published June 11, 1947 (170 pp.); available from the King's Printer, Winnipeg.

Saskatchewan.—Royal Commission to inquire into and report upon matters concerning the forest resources of the Province; Commissioners: Frank Eliason, John C. W. Irwin, John Mitchell, William Bayliss, D. G. Galbraith; Oct. 16, 1946.

Royal Commission to inquire into and report concerning the fish resources of the Province of Saskatchewan and all matters generally related to or connected with fish resources, fisheries and the fishing industry; Commissioners: W. A. Clemens, A. H. MacDonald, H. S. McAllister, A. Mansfield, D. S. Rawson; May 31, 1946.

Royal Commission to investigate the penal system of Saskatchewan; Commissioners: S. R. Laycock, Clarence Halliday, William H. Holman; Mar. 1, 1946; report dated Sept. 13, 1946 (139 pp.).

British Columbia.—Royal Commission to inquire into societies which pay a death benefit derived in whole or in part from assessment; Commissioner: A. J. Cowan; Nov. 4, 1944; report dated Dec. 2, 1946 (95 pp.).

Royal Commission to inquire into Health and Accident Insurance Associations operating in the Province of British Columbia; Commissioner: J. A. Grimmett; Nov. 4, 1944; report dated Nov. 28, 1946 (47 pp.).

Royal Commission to inquire into matters relating to Provincial-Municipal relations in British Columbia; Commissioner: H. Carl Goldenberg; Feb. 16, 1946; report, 190 pp.

Royal Commission to inquire into matters dealing with the indebtedness of certain dyking, drainage and irrigation districts within the Province Commissioner: Dean Frederick Moore Clement; May 10, 1946; report, 150 pp.

CHAPTER XXXIII.—THE ANNUAL REGISTER

CONSPECTUS

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Section 1.—Official Appointments

Diplomatic Appointments.—The personnel of Canadian diplomatic representatives abroad and of British and foreign envoys to Canada, as at Mar. 15, 1947, is given at pp. 89-95 of this volume. From that date to Aug. 31, 1947, the following representatives of Canada's Allies have presented their credentials to His Excellency the Governor General: The Netherlands Ambassador to Canada, Dr. J. H. van Royen, on Apr. 2, 1947; the Chilean Ambassador to Canada, General Arnaldo Carrasco, on June 5, 1947. Hon. James Thorn was appointed High Commissioner for New Zealand to Canada on Feb. 21, 1947, and arrived at Ottawa on May 14, 1947. The Chinese Ambassador to Canada, Dr. Liu Chieh, was appointed May 27, 1947, and presented his credentials June 7, 1947. Primo Villamichel was appointed Mexican Ambassador to Canada on July 2, 1947. Sardat Hardit Singh Malik, C.I.E., O.B.E., was appointed High Commissioner for India to Canada on July 25, 1947. Muzzafer Göker was appointed Turkish Ambassador to Canada on Aug. 10, 1947.

Hon. T. C. Davis was appointed Canadian Ambassador to China on Nov. 6, 1946, and presented his credentials on May 21, 1947; C. F. Elliott was appointed Canadian Ambassador to Chile on Nov. 6, 1946, and presented his credentials on Apr. 3, 1947; Dr. Henry Laureys was appointed Canadian Minister to Denmark and Norway on Mar. 27, 1947, and presented his credentials to His Majesty the King of Norway on Apr. 12, 1947, and to His Majesty the King of Denmark on July 12, 1947; S. D. Pierce was appointed Canadian Ambassador to Mexico on March 27, 1947, and presented his credentials to the President of Mexico on July 17, 1947; J. A. Strong was appointed Canadian Ambassador to Peru on Apr. 4, 1947, and presented his credentials on June 21, 1947; L. D. Wilgress was appointed Minister to Switzerland with personal rank of Ambassador on Apr. 11, 1947, but to date (July 16) has not presented his credentials. J. D. Kearney was appointed Canadian High Commissioner in India on June 18, 1947. Maj. Gen. V. W. Odlum, C.B., C.M.G., D.S.O., was appointed Canadian Ambassador to Turkey on July 7, 1947. Jean Désy was appointed Canadian Minister to Italy on Aug. 13, 1947.

Departmental Appointments.*—*Advisory Board on Wildlife Protection.*—**1947.** June 6, to be Members: Alexander William Banfield, National Parks Bureau, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa; Thomas Lewis Cory, Acting Registrar, Land Registry, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa; Kenneth William Neatby, Director, Science Service, Department of Agriculture, Ottawa; Victor Edward Drick Solman, National Parks Bureau, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa; James Goldwin Wright, Superintendent of Eastern Arctic, Bureau of Northwest Territories and Yukon Affairs, Lands, Parks and Forests Branch, Department of Mines and Resources, Ottawa.

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* Extracts from the *Canada Gazette.*

Associate Deputy Ministers.—**1947.** Jan. 14, Alexander Ross, C.M.G.: to be Associate Deputy Minister of National Defence. Joseph Etienne Gerard Paul Mathieu, D.S.O.: to be Associate Deputy Minister of National Defence.

Atomic Energy Control Board.—**1946.** Sept. 26, Gen. A. G. L. McNaughton and George C. Bateman, formerly Deputy Canadian Member of the Combined Production and Resources Board: to be Members for three years. Dr. Paul E. Gagnon, Director of the Graduate School, Laval University, Quebec, Que., and V. W. T. Scully, Deputy Minister of Reconstruction and Supply: to be Members for two years. Gen. A. G. L. McNaughton: to be President.

Canadian Broadcasting Corporation.—**1946.** Nov. 5, F. G. Crawford, Toronto, Ont.: to be again a Governor for a further term of three years from Nov. 2, 1946.

Canadian Commercial Corporation.—**1947.** Mar. 11, Wilfrid Gordon Mills, Deputy Minister of National Defence: to be a Director, effective Feb. 24, *vice* Donovan Bartley Finn, resigned.

Canadian Farm Loan Board.—**1946.** Dec. 4, John Duncan MacLean, Ottawa, Ont.: to be Commissioner and Chairman. **1947.** Jan. 3, William Clifford Clark, Deputy Minister of Finance: to be again a Member of the Canadian Farm Loan Board for a term of five years as from Dec. 3, 1946.

Canadian Pension Commission.—**1946.** Oct. 22, H. A. L. Conn, M.C.: to be Deputy Chairman, effective Sept. 1, 1946. Major Clifford Merrill Keillor, M.D.: to be an *ad hoc* Member for one year from Dec. 12, 1946. **1947.** Jan. 3, Wing Cmdr. John Murray Forman, D.F.C.: to be an *ad hoc* Member, for a further period of one year from Feb. 1, 1947. Cmdr. Norman Loris Pickersgill, V.D.: to be an *ad hoc* Member for a further period of one year from Feb. 1, 1947.

Canadian Wheat Board.—**1947.** Feb. 20, W. C. McNamara: to be Assistant Chief Commissioner, *vice* Charles E. Huntting, resigned and Florent L. M. Arnold, Winnipeg, Man.: to be a Member replacing W. C. McNamara.

Defence Research Board.—**1947.** Apr. 3, Dr. Charles Herbert Best, Toronto, Ont.; Dr. Paul Edouard Gagnon, Quebec, Que.; Col. Robert Dickson Harkness, Montreal, Que.; and Dr. Otto Maass, Montreal, Que.: to be Members for a term of two years from Apr. 1, 1947. June 24, J. H. Johnstone, O.B.E., M.Sc., Ph.D., Professor of Physics, Dalhousie University, Halifax, N.S.; and G. M. Shrum, O.B.E., M.M., M.A., Ph.D., F.R.S.C., Chairman of the Department of Physics, University of British Columbia, Vancouver, B.C.: to be Members for a term of three years from Apr. 1, 1947.

Dominion Analysts.—**1946.** Sept. 10, H. Bernard, Ottawa Laboratory, Food and Drugs Division; Dr. F. Armstrong, Ottawa Laboratory, Laboratory of Hygiene; Miss T. F. Connor, Toronto Laboratory, Food and Drugs Division; Dr. J. F. Morgan, Ottawa Laboratory, Laboratory of Hygiene; Dr. J. W. Fisher, Ottawa Laboratory, Laboratory of Hygiene, Members of the Technical Staff of the Department of National Health and Welfare: to be Dominion Analysts.

Deputy Ministers.—**1946.** Nov. 6, Frank Herbert Brown, C.B.E., Toronto, Ont.: to be Deputy Minister of National Revenue for Taxation, effective Dec. 1, 1946. **1947.** Jan. 14, Hugh L. Keenleyside: to be Deputy Minister of Mines and Resources and Commissioner of the Northwest Territories, effective Mar. 15,

1947. Stewart Bates, Ottawa, Ont.: to be Deputy Minister of Fisheries, effective Jan. 15, 1947. Wilfrid Gordon Mills, C.M.G.; to be Deputy Minister of National Defence.

Eastern Rocky Mountains Forest Conservation Board.—**1947.** July 23, Maj.-Gen. Howard Kennedy, C.B.E., M.C., B.Sc., Hampstead, Que.: to be Chairman, effective July 17, 1947.

Foreign Exchange Control Board.—**1946.** Louis Rasminsky: to be alternate Chairman, effective Jan. 1, 1947.

Hamilton Harbour Commission.—**1947.** July 18, Louis Charles Flaherty: to be a Member *vice* C. V. Langs, K.C., resigned.

International Monetary Fund.—**1947.** Jan. 21, Hon. Douglas Charles Abbott, Minister of Finance: to be Governor and also Governor of the International Bank for Reconstruction and Development *vice* Rt. Hon. James Lorimer Ilsley.

Interprovincial Board under the Old Age Pensions Act.—**1946.** Nov. 5, Hon. J. M. Paul Sauve, Minister of Social Welfare and of Youth, Province of Quebec: to be a Member *vice* Hon. Antonio Barrette.

Medical Council of Canada.—**1946.** Oct. 8, D. A. Carmichael, M.D., Superintendent of the Royal Ottawa Sanatorium, Ottawa, Ont.: to be a Member for the remainder of the term for which the late George S. McCarthy, M.D., was appointed.

Merchant Seaman Compensation Board.—**1946.** Nov. 14, W. J. Matthews, Chairman; B. J. Roberts, Vice-Chairman and Capt. G. L. C. Johnson: to be Members. C. E. Stevens: to be Secretary.

National Council on Physical Fitness.—**1947.** Apr. 17, Minot Brewer, Fredericton, N.B.: to be again a Member for a further term of three years from Jan. 1, 1947 to Dec. 31, 1949. June 13, Dr. J. B. Kirkpatrick, Director of Physical Fitness for the Province of Saskatchewan: to be a Member *vice* W. A. Wellband, resigned, effective from Apr. 1, 1947, to Dec. 31, 1947. June 24, Ernest Lee, Director of Recreational and Physical Education in the Province of British Columbia: to be a Member *vice* Jerry Mathison, resigned, effective from July 1, 1947, to Dec. 31, 1948.

National Film Board.—**1946.** Oct. 22, Dr. J. G. Bouchard, Associate Deputy Minister of Agriculture, and Donald Cameron, Director of Extension, University of Alberta: to be Members for a period of three years from Aug. 31, 1946. **1947.** Jan. 9, Ross McLean, Ottawa, Ont.: to be Government Film Commissioner for a period of three years. Jan. 28, M. M. MacLean, Department of Labour: to be again a Member for a further period of three years from Jan. 12, 1947.

National Gallery of Canada.—**1946.** Sept. 17, Jean Chauvin, Montreal, Que.: to be a Member of the Board of Trustees.

National Research Council.—**1947.** Apr. 11, Dr. C. H. Best, University of Toronto; Dr. L. P. Dugal, Laval University; Dr. Robert Newton, President, University of Alberta; Dr. W. Penfield, McGill University; and Dr. H. J. Rowley, Chairman, New Brunswick Resources Development Board: to be Members for a term of three years expiring Mar. 31, 1950.

Northwest Territories Council.—**1947.** Feb. 20, John G. McNiven, M.A.Sc., Yellowknife, N.W.T.: to be a Member *vice* K. R. Daly, resigned.

Permanent Joint Board on Defence.—**1947.** Jan. 21, Acting Commodore F. L. Houghton, C.B.E., Assistant Chief of Naval Staff: to be Naval Member of the Canadian Section effective Feb. 1, 1947, *vice* Commodore H. G. DeWolf, C.B.E., D.S.O., D.S.C.

Unemployment Insurance Commission.—**1946.** Sept. 12, J. G. Bisson, O.B.E., Montreal, Que.: to be Chief Commissioner. **1947.** June 19, C. A. L. Murchison, K.C., Ottawa, Ont.: to be a Member for a term of five years from June 1, 1947, *vice* G. W. Ritchie, resigned.

War Assets Corporation.—**1947.** June 17, Hugh Lawson, Toronto, Ont.; J. B. Ward, Montreal, Que.; A. E. McMaster, General Manager; and E. R. Birchard, Vice-President in Charge of Merchandising: to be again Directors for a further term of three years from July 12, 1947.

Judicial Appointments.*—*County and District Courts.*—**1946.** Oct. 30, J. H. Sissons, Grande Prairie, Alta.: to be a Judge of the District Court of the District of Southern Alberta and a Local Judge of the Supreme Court of Alberta. His Honour William Gladstone Ross, Judge of the District Court of the Judicial District of Moosomin, Sask.: to be a Judge of His Majesty's Court of King's Bench for Saskatchewan. George M. Morrison, K.C., Sydney, N.S.: to be a Judge of the County Court of District Seven in the said Province. Nov. 26, His Honour Albert John Gordon, a Junior Judge of the County Court for the County of Essex, Ont.: to be Judge of the County Court for the County of Essex, Ont. and a Local Judge of the High Court of Justice for Ontario. Nov. 28, J. C. Anderson, K.C., Oshawa, Ont.: to be Judge of the County Court for the County of Hastings in the said Province, and a Local Judge of the High Court of Justice for Ontario. **1947.** Feb. 5, Stanley Chandos Staveley Kerr, M.B.E., K.C., Edmonton, Alta.: to be a Judge of the District Court of the District of Northern Alberta and also a Local Judge of the Supreme Court of Alberta. Feb. 25, Lawrence Hudson Phinney: to be Judge of the Juvenile Court for the Court of Dawson, Yukon. James Aubrey Simmons, J.P.: to be Judge of the Juvenile Court for the taxation area of Whitehorse, N.W.T. Mar. 4, Charles J. Jones, K.C., Woodstock, N.B.: to be Judge of the County Courts for the counties of Charlotte, Carleton, Victoria and Madawaska in the Province of New Brunswick. Apr. 29, Eric P. Dawson, Nelson, B.C.: to be Judge of the County Court of West Kootenay, B.C. and also a Local Judge of the Supreme Court of British Columbia.

Higher Courts.—**1946.** Sept. 4, His Honour John Charles Alexander Cameron, a Judge of the County Court for the County of Hastings, Ont.: to be a Puisne Judge of the Exchequer Court of Canada. Oct. 30, His Honour James Boyd McBride, a Judge of the District Court of the District of Northern Alberta: to be a Judge of the Trial Division of the Supreme Court of Alberta and ex officio a Judge of the Appellate Division of the said Court. Hon. George Bligh O'Connor, a Judge of the Trial Division of the Supreme Court of Alberta: to be a Judge of the Appellate Division of the said Court and ex officio a Judge of the Trial Division of the said Court. John B. Aylesworth, K.C., Windsor, Ont.: to be a Judge of the Supreme Court of Ontario and a member of the Court of Appeal for Ontario and ex officio a member of the High Court of Justice for Ontario. G. A. Gale, K.C., Toronto, Ont.: to be a Judge of the Supreme Court of Ontario and a member of the High Court of Justice for Ontario and ex officio a member of the Court of Appeal for

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* Extracts from the *Canada Gazette.*

Ontario. Hon. Orville Sievwright Tyndale, a Puisne Judge of the Superior Court of the Province of Quebec: to be the Puisne Judge of the Superior Court of the said Province to perform the duties of Chief Justice of the Superior Court in the District of Montreal. Hon. Percy McCuaig Anderson, a Judge of His Majesty's Court of King's Bench for Saskatchewan: to be a Judge of the Court of Appeal for Saskatchewan and ex officio a Judge of His Majesty's Court of King's Bench for Saskatchewan. Nov. 5, Wilfrid Edge, K.C., Quebec, Que.: to be a Puisne Judge of the Superior Court for the District of Quebec, in the Province of Quebec. Nov. 20, Alexander John Campbell, Montreal, Que.: to be Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. Dec. 10, E. K. Williams, K.C., Winnipeg, Man.: to be Chief Justice of the Court of King's Bench for Manitoba. J. B. Coyne, K.C., Winnipeg, Man.: to be a Judge of the Court of Appeal for Manitoba and ex officio a Judge of the Court of King's Bench for Manitoba. Dec. 27, Paul C. Casey, K.C., Montreal, Que.: to be a Puisne Judge of the Court of King's Bench in and for the Province of Quebec, effective Jan. 7, 1947. **1947.** Jan. 7, George J. Tweedy, K.C., Charlottetown, P.E.I.: to be a Judge of the Supreme Court of Judicature of Prince Edward Island and Vice-Chancellor of the Court of Chancery of the said Province. Mar. 4, Alfred S. Marriott, Toronto, Ont., one of the Assistant Masters of the Supreme Court of Ontario: to be Registrar of the Exchequer Court of Canada on its Admiralty Side for the Ontario Admiralty District. Apr. 1, Gerald Fauteux, K.C., Montreal, Que.: to be Puisne Judge of the Superior Court for the District of Montreal, Que.

Commissioners.*—**1946.** Oct. 11, Roy T. Graham, K.C., Clerk Assistant, House of Commons: to be a Commissioner to administer the Oath of Allegiance to members elected to the House of Commons of Canada. **1947.** Jan. 7, Hon. Mark Rudolph MacGuigan, Judge of the Supreme Court of Judicature for the Province of Prince Edward Island and Master of the Rolls of Chancery: to be a Commissioner *per dedimus potestatem*, to tender and administer the Oath of Allegiance and other oaths in the Province of Prince Edward Island. Jan. 14, Hon. James Wilfred Estey and Hon. Ivan Cleveland Rand, Puisne Judges of the Supreme Court of Canada; and Hon. Charles Gerald O'Connor and Hon. John Charles Alexander Cameron, Puisne Judges of the Exchequer Court of Canada: to be Commissioners *per dedimus potestatem*, to tender and administer the Oath of Allegiance and other oaths within the Dominion of Canada. Hon. Peter Joseph Hughes, Judge of the Appeal Division of the Supreme Court of New Brunswick: to be a Commissioner *per dedimus potestatem*, to tender and administer the Oath of Allegiance and other oaths within the Province of New Brunswick. Hon. Jules Arthur Gagne and Hon. Paul C. Casey, Puisne Judges of the Court of King's Bench for the Province of Quebec; and Hon. Frederick Thomas Collins, Hon. Alexander John Campbell, Hon. Thomas Wilfrid Edge, Hon. Joseph Dalma Landry and Hon. J. Emile Ferron, Puisne Judges of the Superior Court of the Province of Quebec: to be Commissioners *per dedimus potestatem*, to tender and administer the Oath of Allegiance and other oaths within the Province of Quebec. Hon. John Bell Aylesworth, Hon. Robert Everett Laidlaw, Hon. Dalton Courtwright Wells, Hon. Percy Edwin Frederick Smily, Hon. Walter Frank Schroeder, Hon. John Leonard Wilson, Hon. Arthur Mahony LeBel, Hon. Russell Williams Treleaven, Hon. George Alexander Gale and Hon. Jean Charles Genest, Judges of the Supreme Court of Ontario: to be Commissioners *per dedimus potestatem*, to tender and administer the Oath of Allegiance and other oaths within the Province of Ontario. Hon. James Bowes Coyne and Hon. Hjalmar August Bergman, Judges of the Court of Appeal for Manitoba; and Hon. Esten Kenneth Williams, Chief Justice of the Court of King's Bench for Manitoba: to be Commissioners *per dedimus potestatem,* to tender and administer the Oath of Allegiance and other oaths within the Province of Manitoba. Hon. Donald Alexander McNiven and Hon. William Gladstone Ross, Judges of the Court of King's Bench for Saskatchewan: to be Commissioners *per dedimus potestatem,* to tender and administer the Oath of Allegiance and other oaths within the Province of Saskatchewan. Hon. Harold Hayward Parlee, Judge of the Appellate Division of the Supreme Court of Alberta; and Hon. Clinton J. Ford, Hon. Hugh John Macdonald and Hon. James Boyd McBride, Judges of the Trial Division of the Supreme Court of Alberta: to be Commissioners *per dedimus potestatem,* to tender and administer the Oath of Allegiance and other oaths within the Province of British Columbia. Apr. 29, Dr. J. D. Babbitt of the Division of Physics and Electrical Engineering, National Research Council; P. Gishler, of the Division of Chemistry, National Research Council and J. A. Fournier, Department of Mines and Resources: to be Assay Commissioners. June 27, Hon. Mr. Justice Frederick Drummond Hogg, of the Supreme Court of Ontario: to be a Commissioner to make inquiry into the circumstances respecting the alleged misbehaviour of His Honour John Claude Manley German, Judge of the County Court for the Counties of Northumberland and Durham, in the Province of Ontario. July 18, Hon. Mr. Justice Henry Irvine Bird: to be a Commissioner, pursuant to the Inquiries Act, to inquire into the claims of persons of the Japanese race regarding the management and sale of their real and personal property by the Custodian.

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* Extracts from the *Canada Gazette.*

Section 2.—Dominion Legislation, 1946

Legislation of the Second Session of the Twentieth Parliament, Mar. 14 1946 to Aug. 31, 1946

NOTE.—This classified list of Dominion Legislation has been compiled from the Statutes. Naturally in summarizing material of this kind it is not always easy to convey the full implication of the legislation The reader who is interested in any specific Act is therefore referred to the Statutes themselves. Adequate references are given in this summary.

Chapter and Date of Assent	Synopsis
Citizenship and Immigration—	
15 June 27	*The Canadian Citizenship Act.* This Act establishes and recognizes Canadian citizenship and provides facilities for any person, not a natural-born Canadian but possessing the qualifications defined in the Act, to become a Canadian citizen if he so desires.
54 Aug. 31	*An Act to Amend the Immigration Act* (c. 93, R.S.C. 1927 and amendments) brings this Act into line with the Canadian Citizenship Act by amending the definitions of Canadian citizen and Canadian domicile and laying down rules *re* acquisition and loss of Canadian domicile.
Finance and Taxation—	
1 Apr. 3	*The Appropriation Act, No. 1, 1946* grants payment, out of the Consolidated Revenue Fund, of $273,197,945·73 for defraying expenses of the public service during the fiscal year 1946-47 being one-sixth of the amount of the main estimates. Authority is also granted for the raising of sums required for the redeeming of certain loans or obligations.
Apr. 3	*The Appropriation Act, No. 2, 1946* grants payment of $4,938,873·32, out of the Consolidated Revenue Fund, for defraying expenses of the public service, based on further supplementary estimates for the fiscal year 1945-46.

Legislation of the Second Session of the Twentieth Parliament, Mar. 14, 1946 to Aug. 31, 1946—continued

Chapter and Date of Assent	Synopsis
Finance and Taxation—concl.	
3 May 28	*The Appropriation Act, No. 3, 1946* grants payment out of the Consolidated Revenue Fund of $136,598,972·86 for defraying expenses of the public service during the fiscal year 1946-47, being one-twelfth of the items contained in the main estimates together with additional sums of $2,327,018·33 being one-twelfth of the amount set forth in Schedule A and $64,911,397·66, being one-sixth of the amount set forth in Schedule B to the Act.
12 May 28	*The United Kingdom Financial Agreement Act, 1946.* By this Act the Government of Canada extends to the Government of the United Kingdom a credit of $1,250,000,000 which may be drawn upon any time prior to Dec. 31, 1951. The purpose of this credit is to facilitate purchases by the United Kingdom of goods and services in Canada, to assist the United Kingdom to meet post-war deficits and to maintain adequate reserves to assume the obligations of multilateral trade. The indebtedness of the United Kingdom to Canada with respect to the British Commonwealth Air Training Plan is cancelled.
14 June 27	*The Appropriation Act, No. 4, 1946* authorizes the payment, out of the Consolidated Revenue Fund, of $136,598,972·86 for defraying expenses of the public service for the fiscal year 1946-47, being one-twelfth of the amount of the main estimates.
18 July 26	*The Appropriation Act, No. 5, 1946* grants payment of $136,598,972·86, out of the Consolidated Revenue Fund, for defraying expenses of the public service for the fiscal year 1946-47, being one-twelfth of the amount of the main estimates.
38 Aug. 31	*The Canada-United Kingdom Income Tax Agreement Act, 1946* approves an agreement between Canada and the United Kingdom for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income.
39 Aug. 31	*The Canada-United Kingdom Succession Duty Agreement Act, 1946* approves an agreement between Canada and the United Kingdom for the avoidance of double taxation and the prevention of fiscal evasion with respect to duties on estates of deceased persons.
45 Aug. 31	*An Act to Amend the Customs Tariff* (c. 44, R.S.C. 1927 and amendments). This Act makes certain changes in the Schedule A to the Customs Tariff.
46 Aug. 31	*An Act to Amend the Dominion Succession Duty Act* (c. 14, 1940-41 and amendments) doubles the Dominion rates of succession duty, but the duty paid to any province on the same estate will be allowed as a credit against the Dominion duty up to one-half the Dominion duty.
47 Aug. 31	*An Act to Amend the Excess Profits Tax Act, 1940* (c. 32, 1940 and amendments). By this amendment, the rate of tax applying on profits in excess of 116⅔ p.c. of standard profits was decreased from 20 p.c. to 15 p.c. effective Jan. 1, 1947; sale proprietorships and partnerships were exempt entirely from the excess profits tax; and the flat 22 p.c. rate on the profits of corporations or joint stock companies was repealed.
48 Aug. 31	*An Act to Amend the Excise Act, 1934* (c. 52, 1934 and amendments). The amendments under this Act concern the transfer of goods in bond, regulations *re* spirits used for certain purposes, and a decrease in the duty on cigars.
53 Aug. 31	*The Foreign Exchange Control Act* provides for the continuation in peacetime of the Foreign Exchange Control Board.
55 Aug. 31	*An Act to Amend the Income War Tax Act* (c. 97, R.S.C. 1927 and amendments). These amendments include a complete revision of the personal income tax structure with increased exemption; increase in tax rates on corporation incomes; revision of taxation on co-operatives; and the establishment of income tax appeal boards.
65 Aug. 31	*An Act to Amend the Special War Revenue Act* (c. 179, R.S.C. 1927 and amendments) increases the tax on premiums received by insurance companies, makes minor amendments to the securities transfer tax, provides for a straight tax of 25 p.e. on cigars and repeals Schedule II of the Act.
Justice—	
5 May 28	*An Act to Amend the Criminal Code* (c. 36, R.S.C. 1927 and amendments). These amendments are concerned with the holding of race meetings.
20 July 26	*An Act to Amend the Criminal Code* (c. 36, R.S.C. 1927 and amendments) brings Alberta completely under the provisions of the Criminal Code and makes provisions for trial without jury by consent in that province, and for six jurors to be sworn in cases of trial by jury.

Legislation of the Second Session of the Twentieth Parliament, Mar. 14, 1946 to Aug. 31, 1946—continued

Chapter and Date of Assent	Synopsis
Justice—concl.—	
22 July 26	*An Act to Amend the Exchequer Court Act* (c. 34, R.S.C. 1927 and amendments) amends the constitution of the Court to include three Puisne Judges instead of two.
56 Aug. 31	*The Judges Act, 1946* sets forth new salary rates for Judges of Dominion and Provincial courts, together with regulations concerning travelling allowances, annuities, tenure of office, residence, retirement, etc. All previous legislation on such matters is repealed.
44 Aug. 31	*An Act to Amend the Combines Investigation Act* (c. 26, R.S.C. 1927 and amendments) places the administration of the Act under the Minister of Justice and makes a number of amendments *re* the appointment of deputy commissioners, investigation of complaints, etc.
73 Aug. 31	*An Act respecting War Crimes* re-enacts the War Crimes Regulations (Canada) enacted as of Aug. 30, 1945, which deal with the custody, trial and punishment of persons charged with or suspected of war crimes.
Labour—	
68 Aug. 31	*An Act to Amend the Unemployment Insurance Act, 1940* (c. 44, 1940 and amendment) recasts a great part of the original legislation. Provision for the counting of service in the Armed Forces as insurable employment is also included.
Mines and Resources—	
9 May 28	*The National Parks (Boundaries) Amendment Act, 1946* (c. 33, 1930) redefines the boundaries of certain National Parks.
13 May 28	*An Act to Amend the Yukon Quartz Mining Act* (c. 217, R.S.C. 1927 and amendments) makes certain amendments respecting the staking of claims, the grouping of claims for working, and the protection of service and ex-service personnel from forfeiture of claims.
35 July 26	*An Act to Amend the Yukon Placer Mining Act* (c. 216, R.S.C. 1927). Claims held by members of the Services are exempt for one year from legislation respecting forfeiture of claims. Also export of gold from the Territory without payment of royalty is prohibited.
National Defence—	
17 June 27	*An Act to Amend the Naval Service Act, 1944* (c. 23, 1944) authorizes the establishment of the Royal Canadian Sea Cadet Corps to consist of boys 12 to 18 years of age who voluntarily apply for membership.
32 July 26	*An Act to Amend the Royal Canadian Air Force Act* (c. 15, 1940) authorizes the formation of Royal Canadian Air Cadet Squadrons to consist of boys 15 to 18 years of age who voluntarily apply for membership.
National Health and Welfare—	
11 May 28	*An Act to Amend the Opium and Narcotic Drug Act, 1929* (c. 49, 1929 and amendments) makes minor amendments in the legislation respecting the sale of narcotics.
23 July 26	*An Act to Amend the Food and Drugs Act* (c. 76, R.S.C. 1927 and amendments) repeals Part II of the Act respecting the sale and labelling of honey and makes certain other amendments regarding the distribution of food and drugs in the interests of the public.
50 Aug. 31	*An Act to Amend the Family Allowances Act, 1944* (c. 40, 1944-45) amends the sections respecting cessation of payment and payment to persons other than parents in certain cases.
Printing and Stationery—	
27 July 26	*An Act to Amend the Public Printing and Stationery Act* (c. 162, R.S.C. 1927). Legislation regarding the duties of the clerk of the Printing Committee of the House of Commons is repealed.
28 July 26	*An Act to Amend the Public Printing and Stationery Act* (c. 162, R.S.C. 1927 and amendments). By this Act the amounts that may be advanced to the King's Printer out of the Consolidated Revenue Fund for carrying out the provisions of the Act is increased from $700,000 to $2,000,000.

Legislation of the Second Session of the Twentieth Parliament, Mar. 14, 1946 to Aug. 31, 1946—continued

Chapter and Date of Assent	Synopsis
Trade and Commerce—	
8 May 28	*An Act to Amend the Export Act* (c. 63, R.S.C. 1927) repeals legislation prohibiting the export of certain wild game.
26 July 26	*The Precious Metals Marking Act, 1946.* This Act provides legislation respecting the marking of gold, silver, platinum and plated articles sold in Canada or imported into Canada by dealers.
40 Aug. 31	*The Canadian Commercial Corporation Act* authorizes the establishment of the Canadian Commercial Corporation, a Crown-owned Company, the purpose of which is to assist in the development of trade between Canada and other nations.
49 Aug. 31	*An Act to Amend the Export Credits Insurance Act* (c. 39, 1944-45 and amendments) makes a number of administrative amendments to the Act.
Transportation—	
4 May 28	*An Act respecting the appointment of Auditors for National Railways* provides for the appointment of independent auditors for 1946 to make a continuous audit of the Accounts of the National Railways.
10 May 28	*An Act to Amend the Navigable Waters' Protection Act* (c. 140, R.S.C. 1927) makes a minor amendment regarding approval of works constructed in navigable waters.
19 July 26	*An Act respecting Canadian National Railways and the Acquisition of the Manitoba Railway* provides for the purchase and acquisition by the Canadian National Railways of the property of the Manitoba Railway Company.
21 July 26	*An Act to Amend the Department of Transport Stores Act* (c. 28, 1937 and amendment) raises the inventory of stores at the end of each fiscal year from $1,250,000 to $1,600,000.
30 July 26	*An Act to Amend the Railway Act* (c. 170, R.S.C. 1927) makes a minor amendment regarding trains moving in reverse.
41 Aug. 31	*An Act respecting the Construction of a Line of Railway by Canadian National Railway Company, from Barraute to Kiask Falls on the Bell River, in the Province of Quebec* authorizes the construction of the said railway line at an estimated cost of $4,125,000.
42 Aug. 31	*Canadian National Railways Financing and Guarantee Act, 1946* authorizes the provision of moneys to meet capital expenditures made and capital indebtedness incurred by the Canadian National Railways during 1946 and authorizes the guarantee by the Government of certain securities to be issued by the Canadian National Railways.
67 Aug. 31	*The Toronto Harbour Commissioners' Act, 1946* authorizes that Commission to purchase certain lands from the Canadian Pacific Railway.
Veterans Affairs and Pensions—	
33 July 26	*An Act to Amend the Soldier Settlement Act* (c. 188, R.S.C. 1927 and amendments) reduces the rate of interest in the case of Settlers who are Veterans of two wars as of 1942 or date of enlistment and in the case of other settlers as of 1944.
34 July 26	*The Women's Royal Naval Services and the South African Military Nursing Service (Benefits) Act.* Under this Act, persons who served in these Services are classified as veterans and as such are entitled to all rights, privileges and benefits conferred by veteran legislation.
36 Aug. 31	*The Allied Veterans Benefits Act.*—By this Act persons domiciled in Canada who served in the Forces of an other allied Nation and returned to Canada are entitled to certain benefits conferred by veteran legislation.
43 Aug. 31	*The Civilian War Pensions and Allowances Act* confers pension rights upon certain groups of persons who rendered valiant service in the War but who were not attested as members of the Forces, including merchant seamen, salt-water fishermen, auxiliary services personnel, Canadian overseas fire fighters, R.C.M.P. personnel, air raid precautions workers, welfare workers and Canadian civilian air crew of the Royal Air Force Transport Command.
52 Aug. 31	*The Fire Fighters War Service Benefits Act* provides for the payment of gratuities to Canadian fire fighters who served in the United Kingdom and grants to them certain benefits provided under veteran legislation.

Legislation of the Second Session of the Twentieth Parliament, Mar. 14, 1946 to Aug, 31, 1946—continued

Chapter and Date of Assent	Synopsis
Veterans Affairs and Pensions— concl.	
59 Aug. 31	*An Act to Amend the Militia Pension Act* (c. 133, R.S.C. 1927 and amendments) requires all new members of the three Permanent Forces to contribute to a pension fund whereas formerly only officers and warrant officers contributed and only their widows and children were protected. The Act is thus brought into line with the Civil Service Superannuation Act.
62 Aug. 31	*An Act to Amend the Pension Act* (c. 157, R.S.C. 1927 and amendments). These amendments deal mainly with pensions to dependents, equal pensions for men and women, extension of benefits to Canadians who served in the forces of Allied nations and the placing of home-service veterans on the same basis as overseas veterans for awards.
63 Aug. 31	*The Reinstatement in Civil Employment Act, 1946* provides for the reinstatement in civil employment of discharged members of the Armed Forces and other designated persons.
64 Aug. 31	*The Special Operators War Service Benefits Act* confers all rehabilitation, pension and other veteran benefits upon about seventy men who were recruited in Canada by United Kingdom authorities and sent to enemy areas for special war duties.
66 Aug. 31	*The Supervisors War Service Benefits Act* confers on certain supervisors in the Auxiliary Services certain rehabilitation, pension and other veteran benefits.
69 Aug. 31	*The Veterans' Business and Professional Loans Act* enables a veteran to borrow from a chartered bank a sum up to $3,000 at 5 p.c. interest to assist in his establishment in business or professionally.
70 Aug. 31	*An Act to Amend the Veterans' Land Act, 1942* (c. 33, 1942-43 and amendment) increases the amount of loan permissible and extends the benefits of the Act to tenant farmers and to farmers holding land under agreement for sale.
71 Aug. 31	*An Act to Amend the Veterans Rehabilitation Act* (c. 35, 1945) authorizes loans to student veterans and makes other improvements in the provisions for assisting veterans in education and trade training.
72 Aug. 31	*An Act to amend the Veterans Rehabilitation Act* (*University Grant*) (c. 35, 1945) authorizes grants to universities, not exceeding $150 per veteran student, for the provision of additional equipment, staff and services required to meet the increase in enrolment.
74 Aug. 31	*An Act to Amend the War Service Grants Act, 1944* (c. 51, 1944-45 and amendment). These amendments concern mainly the computation of supplementary grants and the entitlement to credit by dependents of deceased veterans.
75 Aug. 31	*The War Veterans' Allowance Act, 1946* replaces the War Veterans' Allowance Act, 1930 and Orders in Council dealing with such allowances. The new legislation covering veterans of two wars increases the basic monthly allowances and permits the recipient to have certain other income. Women veterans are made eligible for its benefits at 55 years of age.
Miscellaneous—	
6 May 28	*An Act to Amend the Department of External Affairs Act* (c. 65, R.S.C. 1927). Under this amendment a Minister of the Crown shall preside over the Department rather than the Prime Minister.
7 May 28	*The Explosives Act, 1946* lays down new regulations concerning the manufacture, testing, sale, storage and importation of explosives. The Explosives Act (c. 62, R.S.C. 1927) is repealed.
16 June 27	*An Act to Amend the Feeding Stuffs Act, 1937* (c. 30, 1937) brings certain live-stock feeds under Government regulation.
24 July 26	*The Government Companies Operation Act.* Regulations respecting the operation of Government Companies are laid down by this Act.
25 July 26	*An Act to Amend the House of Commons Act* (c. 145, R.S.C. 1927). Legislation providing credits for sums required for the payment of indemnities and expenses of Members and salaries and allowances of other employees of the House of Commons is repealed.

Legislation of the Second Session of the Twentieth Parliament, Mar. 14, 1946 to Aug. 31, 1946—concluded

Chapter and Date of Assent	Synopsis
Miscellaneous— concl.	
29 July 26	*An Act to Amend the Quebec Boundaries Extension Act, 1912* (c. 45, 1912) repeals legislation whereby the population of the territories added to the Province of Quebec under the Act of 1912 should be excluded from the Province for purposes of readjustment of representation in the House of Commons.
31 July 26	*An Act to Amend the Research Council Act* (c. 177, R.S.C. 1927) provides for the establishment of a Committee of the Privy Council on Scientific and Industrial Research and also for the appointment of a Vice-President (Administration), a Vice-President (Scientific) and two additional Members to the Council. Certain additional powers are also given to the Council particularly with respect to the incorporation and control of companies.
37 Aug. 31	*The Atomic Energy Control Act, 1946* authorizes the establishment of an Atomic Energy Control Board, the purpose of which is to control and supervise the development, application and use of atomic energy so as to enable Canada to participate effectively in measures of international atomic control.
51 Aug. 31	*An Act to Amend the Federal District Commission Act, 1927* (c. 55, R.S.C. 1927 and amendments) provides a lump sum of $3,000,000 from the Consolidated Revenue Fund for construction and development work in the National Capital District and increases the annual vote from $200,000 to $300,000 for maintenance and improvements.
57 Aug. 31	*An Act to Amend the Meat and Canned Foods Act* (c. 77, R.S.C. 1927 and amendments). Legislation requiring canned fish and shellfish to be labelled with the place or province where packed is removed.
58 Aug. 31	*The Merchant Seamen Compensation Act* extends workmen's compensation benefits to merchant seamen not already covered by existing Dominion or provincial legislation.
60 Aug. 31	*An Act to Amend the National Emergency Transitional Powers Act, 1945* (c. 25, 1945) advances the expiration date of the Act to Mar. 31, 1947, or the Sixtieth day after Parliament meets during 1947, whichever date is the earlier.

Statutory Holidays, 1948

New Year's Day	Jan. 1	Dominion Day	July 1
Good Friday	Mar. 26	Labour Day	Sept. 6
Easter Monday	Mar. 29	Thanksgiving Day	When Proclaimed[2]
Victoria Day	May 24	Remembrance Day	Nov. 11
King's Birthday	When Proclaimed[1]	Christmas Day	Dec. 25

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[1] June 9, 1947. [2] Oct. 13, 1947.

APPENDIX I

Foreign Trade of Canada, 1946-47

Chapter XXIII of this volume includes foreign trade figures for the calendar year 1946. However, at the time of going to press, it is possible to give monthly figures up to the end of August 1947; these are shown in the following table together with monthly data for 1946 which are given for purposes of comparison.

It will be noted that domestic exports have shown a decided increase in each of the first seven months of 1947 as compared with the same months of 1946. Imports over the total period given have also shown an increase in each month over the previous year.

1.—Trade of Canada (Excluding Gold), by Months, January, 1946-June, 1947

Note.—Figures for the calendar years 1940, 1941, 1942 and 1943 are given at p. 1059 of the 1943-44 Year Book and 1944 figures at p. 1163 of the 1945 Year Book.

Month	Imports		Domestic Exports		Total Trade	
	1946	1947	1946	1947	1946	1947
	$'000	$'000	$'000	$'000	$'000	$'000
January	140,309	173,782	189,090	208,639	331,653	384,267
February	116,996	177,090	153,143	179,505	271,731	358,926
March	139,949	208,891	178,377	208,973	319,921	420,777
April	160,765	225,611	178,488	190,864	341,027	419,009
May	164,197	240,308	196,978	267,807	363,034	511,546
June	157,658	231,052	166,697	272,672	326,430	507,447
July	161,615	226,813	188,706	236,574	352,878	466,449
August	163,224	204,593	242,685	221,297	409,218	429,428
September	156,096	-	169,779	-	328,013	-
October	186,393	-	204,150	-	393,001	-
November	198,164	-	232,219	-	433,302	-
December	181,913	-	211,903	-	396,237	-
Totals	**1,927,279**	-	**2,312,215**	-	**4,266,445**	-

APPENDIX II

Survey of Production, 1944-45

The enterprises engaged in the production of commodities showed, in 1945, a decline in all industries except forestry, fisheries, construction, and custom and repair in gross value from the previous year. The total net value of output of primary production was 8·8 p.c. less than in 1944 and 9·5 p.c. less in the secondary activities. Table 2 shows the value of production for 1944-45 by provinces.

1.—Gross and Net Values of Production, by Industries, 1944 and 1945

Note.—Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and process supplies consumed in the production process.

Industry	1944		1945		Percentage Change in Net Value, 1945 from 1944	Percentage of Net Value to Total Net Production 1945
	Gross	Net	Gross	Net		
	$	$	$	$		
Agriculture	1,918,212,000	1,533,372,000	1,683,237,000	1,284,682,000	−16·22	21·12
Forestry	887,973,532	507,357,605	964,237,446	550,970,574	+8·60	9·06
Fisheries	123,705,565	76,889,487	158,202,990	85,373,768	+11·03	1·40
Trapping	23,988,773	23,988,773	21,505,447	21,505,447	−10·35	0·35
Mining	897,407,212	454,022,468	766,721,126	413,576,800	−8·91	6·80
Electric Power	215,246,391	209,757,908	215,105,473	210,036,214	+0·13	3·45
Less duplication in forest production[1]	*78,294,000*	*61,357,833*	*80,641,000*	*64,501,946*	*+5·12*	*1·06*
Totals, Primary Production	3,988,239,473	2,744,030,408	3,728,368,482	2,501,642,857	−8·83	41·12
Construction	449,838,059	249,037,017	543,579,833	267,957,837	+7·60	4·40
Custom and repair	243,424,000	165,174,000	262,621,000	178,200,000	+7·89	2·93
Manufactures	9,073,692,519	4,015,776,010	8,250,368,866	3,564,315,899	−11·24	58·59
Totals, Secondary Production	9,766,954,578	4,429,987,027	9,056,569,699	4,010,473,736	−9·47	65·92
Less duplication in manufactures[2]	*1,160,974,424*	*437,045,069*	*1,115,088,513*	*428,243,781*	*−2·01*	*7·04*
Grand Totals	**12,594,219,627**	**6,736,972,366**	**11,669,849,668**	**6,083,872,812**	**−9·69**	**100·00**

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[1] Eliminates duplication between the agriculture and forestry totals. [2] Eliminates duplication under "Manufactures"; this item includes sawmills, pulp and paper mills, etc., which are also included under other headings above.

2.—Gross and Net Values of Production, by Provinces, 1944 and 1945

Province	1944				1945			
	Gross Value	Net Value			Gross Value	Net Value		
		Amount	P.C.	Per Capita[1]		Amount	P.C.	Per Capita[1]
	$	$		$	$	$		$
P.E.I.	32,865,329	18,850,736	0·28	207·15	36,431,776	20,604,911	0·34	223·97
N.S.	342,965,225	193,327,946	2·87	315·90	338,522,173	182,724,409	3·01	294·24
N.B.	249,614,350	135,376,199	2·01	293·02	254,962,964	133,984,112	2·20	286·29
Que.	3,694,059,531	1,899,594,337	28·20	542·74	3,308,798,968	1,694,335,871	27·85	475·80
Ont.	5,347,245,765	2,682,709,260	39·81	676·60	5,051,713,237	2,499,527,223	41·09	624·26
Man.	587,765,693	313,093,535	4·65	427·72	560,731,469	288,608,923	4·74	392·13
Sask.	740,052,295	528,818,265	7·85	625·08	575,140,633	364,706,923	5·99	431·61
Alta.	655,354,857	416,120,352	6·18	508·70	599,366,498	359,235,626	5·90	434·91
B.C.	938,643,866	543,947,198	8·07	583·63	939,029,406	535,488,648	8·81	564·27
Yukon and N.W.T.	5,652,716	5,134,538	0·08	302·03	5,152,544	4,656,166	0·07	273·89
Canada	**12,594,219,627**	**6,736,972,366**	**100·00**	**562·59**	**11,669,849,668**	**6,083,872,812**	**100·00**	**502·01**

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[1] Based on population estimates given on p. 100.

3.—Forest Products Duplication, by Provinces, 1940-45

Province	1940	1941	1942	1943	1944	1945
	$	$	$	$	$	$
Prince Edward Island	380,007	338,557	341,849	527,387	726,476	759,072
Nova Scotia	3,603,000	3,068,486	3,026,753	4,030,038	4,342,399	4,511,241
New Brunswick	4,344,000	4,624,540	5,777,953	7,242,136	6,371,359	6,416,520
Quebec	18,759,000	18,870,102	22,522,617	30,561,650	27,005,001	29,942,162
Ontario	10,343,000	8,597,886	9,258,912	12,669,823	13,997,398	13,733,690
Manitoba	1,533,000	1,351,352	1,316,314	2,178,726	1,942,755	2,083,649
Saskatchewan	2,012,000	2,296,944	2,269,398	3,528,287	2,908,255	2,980,298
Alberta	1,773,000	1,538,009	1,594,048	2,131,639	2,542,274	2,572,367
British Columbia	946,000	914,267	866,596	1,130,928	1,521,916	1,502,947
Totals	**43,693,007**	**41,600,143**	**46,974,440**	**64,000,614**	**61,357,833**	**64,501,946**

4.—Net Value of Production in the Processing Industries, 1940-45

Industry	1940	1941	1942	1943	1944	1945
	$	$	$	$	$	$
Fish curing and packing	13,163,500	17,423,054	20,969,913	20,588,039	22,066,801	30,529,102
Sawmilling	61,700,043	76,660,254	91,206,949	91,714,000	96,528,955	103,153,766
Non-ferrous metal smelting	98,059,288	119,736,294	125,881,047	111,857,020	174,492,103	89,898,878
Pulp and paper	158,230,575	174,555,041	165,193,627	165,485,944	123,303,038	180,401,885
Cement	8,715,422	9,279,164	10,213,916	7,152,763	6,882,354	9,416,426
Clay products	4,922,319	5,806,763	5,630,484	5,346,386	5,478,923	6,938,409
Lime	3,593,009	4,161,412	3,932,279	4,908,510	5,005,235	4,663,859
Salt	2,461,482	2,676,533	3,173,755	3,648,854	3,287,660	3,241,456
Totals	**350,845,638**	**410,298,515**	**426,201,970**	**410,701,516**	**437,045,069**	**428,243,781**

APPENDIX III

CHRONOLOGY

In continuance of the Chronology at pp. 46-55 of this volume.

1947. Jan. 1, In the King's New Year's Honours List, James G. Gardiner and Ian A. Mackenzie made members of Imperial Privy Council. Canadian Citizenship Act came into force. Jan. 13, The Privy Council, London, England, expressed the view that no barriers remain in the way of making the Supreme Court at Ottawa the final Court of Canada. Jan. 14, Canada elected to the Economic and Social Council of the United Nations. Jan. 30, The Third Session of Canada's Twentieth Parliament opened. Montreal-Cartier seat (occupied by Fred Rose) immediately declared vacant. By-election held Mar. 31 with the Liberal Party winning seat. Feb. 12, Prime Minister W. L. Mackenzie King presented to the House of Commons a statement of principles for peacetime defence co-operation between Canada and the United States. Feb. 28-Mar. 29, The Economic and Social Council of United Nations met at New York, U.S.A., with a Canadian representative present. Mar. 26, First report of the Atomic Energy Commission of the United Nations tabled in House of Commons. Apr. 4, International Civil Aviation Organization (I. C. A. O.) replaces P.I.C.A.O. at Washington convention. Apr. 8, L. Dana Wilgress, Canadian Minister to Switzerland, appointed head of Canadian delegation to the International Trade Organization meeting at Geneva on Apr. 10. May 6-27, The First General Assembly of I.C.A.O. met at Montreal, Que., with delegates present from thirty-nine nations. May 16, Canada represented by Justice I. C. Rand on United Nations Fact-Finding Commission on Palestine, under the chairmanship of L. B. Pearson. June 3-15, India offered plan by Great Britain for Dominion status, with Hindu and Moslem territories becoming Dominions of Hindustan and Pakistan, respectively. Transfer of British authority to be completed by June, 1948. Moslems accepted plan on June 9, Hindus on June 15. June 10, Prime Minister W. L. Mackenzie King completed twenty years service as Prime Minister of Canada. This record was exceeded in the Commonwealth only by that of Sir Robert Walpole 1721 – 1742. June 10-12, President Truman, of the United States, accompanied by Mrs. Truman and their daughter, paid an official visit to Ottawa. President Truman addressed a joint session of the House of Commons and Senate on June 11. June 18-22, Marian Congress, attended by Roman Catholic potentates from many countries and dedicated to world peace through prayer, met at Ottawa. June 25, Canada and Newfoundland begin discussions regarding Newfoundland's entry into Confederation as tenth province. June 27, Viscount Bennett, former Prime Minister of Canada and Peer of the United Kingdom, died at his home in Surrey, England. Burial at Dorking, June 30. Memorial service Westminster Abbey followed on July 4, and in Chalmers Church at Ottawa on July 9. July 9, Engagement of Princess Elizabeth to Lieutenant Philip Mountbatten announced in House of Commons by Prime Minister King. July 16, Canadian-built destroyer, *Micmac*, in collision with a freighter outside Halifax harbour. July 17, The Dominion - Provincial Tax Rental Agreement Act, 1947, was passed to authorize the Government of Canada to enter into Agreements with the Governments of the Provinces. July 18, A Royal Commission gave the King's assent to the Indian Independence Bill which grants full independence to India after nearly 200 years of British rule. July 19, Hon. Paul Martin, Minister of National Health and Welfare, headed the Canadian delegation to the fifth session of the United Nations Economic and Social Council held at Lake Success, N.Y. July 22, Arctic supply ship, *Nascopie*, on her annual trip to northern government posts, foundered on the rocks off Cape Dorset, southwest Baffin Island. July 31, Rt. Hon. C. D. Howe, Minister of Reconstruction and Supply, represented Canada at the Imperial Privy Council meeting at Buckingham Palace to give formal consent to the marriage of Princess Elizabeth and Lieut. Philip Mountbatten. Aug. 7, Prime Minister Mackenzie King celebrated his 28th anniversary as leader of the Liberal party. Aug. 10, Hon. H. T. G. Bridges, Minister of Fisheries in the Dominion Cabinet died suddenly at Ottawa. British economic crisis brought to a focus by Prime Minister Attlee's international radio address. British imports from North America threatened. Aug. 11, Senator Gerald Gratton McGeer died suddenly at Vancouver, B.C. Aug. 12, John Alexander Douglas McCurdy, Baddeck, N.S., appointed Lieutenant-Governor of the Province of Nova Scotia. Aug. 15, The new Dominions of India and Pakistan took over their new responsibilities, the former Viscount Mountbatten as Governor General of India and Mahommed Ali Jinnah as Governor General of Pakistan.

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